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ABSTRACT

This document presents witnesses' testimonies and additional information from the Senate hearing held in Miami, Florida to examine the issue of preventive health services, focusing on risk reduction and health promotion programs for the elderly. The goal of the hearing was to examine efforts to identify people with high risks of developing a catastrophic illness. Opening statements are included from Senators Bob Graham and George Mitchell, and from Mitch Maidique, president of Florida International University. Florida witnesses providing testimony include: (1) Carl Eisdorfer, director of the Comprehensive Center on Aging, University of Miami Medical School; (2) Carolee DeVito, director of planning and evaluation, South Shore Hospital, Miami Beach; (3) Josefina Carbonell, director of Little Havana Activities and Nutrition Center, Miami; (4) Tessa Macaulay, coordinator of Geronto-Logical Programs, Florida Power and Light, Miami; (5) G. Curt Meyers, director of the Wellness Center, Lee Memorial Hospital, Fort Myers; (6) Elliott Palevsky, executive director of River Garden Hebrew Home, Jacksonville; (7) Gary Lyman, chief of medical services, H. Lee Monifit Cancer Center, University of South Florida, Tampa; (8) Jack Kassan, medical director, Broward County Medivan, Fort Lauderdale; and (9) Sally Kanter-Bruin, St. Mary's Hospital, Mammovan Project, West Palm Beach. Witnesses describe efforts being conducted by their organizations and emphasize the need for preventive health activities for older adults. (NB)

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PREVENTIVE HEALTH CARE FOR THE ELDERLY

HEARING

BEFORE THE

SUBCOMMITTEE ON HEALTH

OF THE

COMMITTEE ON FINANCE
UNITED STATES SENATE

ONE HUNDREDTH CONGRESS

SECOND SESSION

MIAMI, FLORIDA
JANUARY 6, 1988

CG 020785

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PREVENTIVE HEALTH CARE FOR THE ELDERLY

WEDNESDAY, JANUARY 6, 1988

U.S. SENATE,
SUBCOMMITTEE ON HEALTH,
COMMITTEE ON FINANCE,
Miami, FL.

The subcommittee met, pursuant to notice, at 10:05 a.m. in auditorium 194, Academic Building No. 1, North Miami Campus of the Florida International University, Hon. George J. Mitchell (chairman of the subcommittee) presiding.

Present: Senators Mitchell and Graham.

Also present: Dr. Mitch Maidique, president, Florida International University.

[The press release announcing the hearing the prepared statement of the American College of Preventive Medicine, and the prepared statement of Senator Graham follow:]

[Press Release No. H-73, Dec. 21, 1987]

FINANCE SUBCOMMITTEE ON HEALTH TO HOLD FIELD HEARINGS ON PREVENTIVE HEALTH CARE FOR THE ELDERLY

Washington, DC.—Senator George J. Mitchell, (D., Maine), chairman of the Subcommittee on Health, in conjunction with Senator Bob Graham, (D., Florida) announced Monday that the subcommittee will hold a field hearing in Miami, FL, on risk-reduction and health promotion for the elderly.

The hearing is scheduled for Wednesday, January 6, 1988 at 10:00 a.m. at Florida International University, North Miami Campus in auditorium 194, Academic No. 1 Building, NE., 151 Street and Biscayne Boulevard, Miami, FL.

"I think preventive care is an important part of the foundation of our health care system for older Americans," said Senator Mitchell.

Senator Graham said, "The hearing will focus on public health risk-reduction programs, health promotion and education through the private sector, and medical tests for preventive health screenings."

Senators Mitchell and Graham will hear from a panel of experts who will appear by invitation only.

Written statements: Those who are not scheduled to make an oral presentation, but who wish to present their views to the Finance Subcommittee are urged to prepare a written statement for submission and inclusion in the printed record of the hearing. These written statements should be typewritten, not more than 10 pages in length, and mailed with 5 copies to Laura Wilcox, Hearing Administrator, SD-205 Dirksen Office Building, Washington, DC. 20510, and 5 copies to Mary McAuliffe, Minority Chief of Staff, SH-203 Hart Office Building, Washington, DC. 20510. Written Statements must be received no later than Wednesday, February 3, 1988.

TESTIMONY FOR THE FINANCE SUBCOMMITTEE

UNITED STATES SENATE

from the

American College of Preventive Medicine

PREVENTIVE HEALTH CARE SERVICES FOR THE ELDERLY

Although 11% of the United States population is over the age of 65, the elderly consume 30% of the nation's health care dollars and 50% of the federal health budget (1). These figures reflect the elaborate medical attention required by the elderly and the considerable expense of long-term institutionalization of 1.5 million individuals (2). Services on this scale are necessary to treat the serious diseases which are especially common among the elderly. These include heart disease; cancer of the lung, breast, colon, cervix, and prostate; cerebrovascular disease; diabetes; pulmonary disease; dementia and depression; injuries and disability; and many others (3).

We now know that most of these medical conditions can be prevented. They are caused by behavioral and environmental risk factors that can be eliminated earlier in life. Indeed, it has been estimated that at least 60% of all health problems are the result of such influences (4). One risk factor, the use of tobacco, is by itself responsible for about 320,000 deaths annually, and is the attributable cause of 30% of all cancers, 85% of lung cancers, and up to 30% of coronary heart disease (5-7). Nutritional links to heart disease, cancer, and many other conditions are well established (3).

Experience has taught us that preventive strategies directed at reducing exposure to these risk factors can be dramatically successful in lowering the prevalence of chronic diseases and improving the life expectancy of the average American. The reduction in the incidence of coronary artery disease over recent years is not due to technological advances in surgical methods and intensive care medicine but is primarily the result of changes in the exercise and nutritional habits of Americans (8). The control of hypertension has also been instrumental in this trend and the 32% decline in the occurrence of strokes (3). Tests for the early detection of cancer have dramatically improved five-year survival for cancer of the colon, breast, and cervix, which together account for over 110,000 deaths each year (9). Mortality from cervical cancer has decreased steadily with the implementation of Pap smear screening programs (10,11). Evidence supporting the value of counseling regarding nutrition, smoking, and other risk factors has been strengthened by large multicenter trials such as the Lipid Research Clinics (LRC) Coronary Primary Prevention Trial (12) and the Multiple Risk Factor Intervention Trial (MRFIT) (13).

Since preventive strategies are more effective if initiated early in life, there is a common misconception that prevention is of little value to the elderly. In actuality, the elderly have much to gain. The average 65-year-old can expect to live an additional 15 years and the average 75-year-old can expect to live another ten (1). This is a "window" of opportunity, during which the occurrence and severity of a variety of serious and disabling conditions can be reduced effectively through established preventive maneuvers.

Unfortunately, these preventive maneuvers are not offered to all older Americans. Warning signs are left undetected and risk factors untreated until the symptoms of the disease bring the individual to medical attention. By this time many diseases are very advanced and the potential for meaningful clinical intervention is quite limited. This delay in care is a personal tragedy for the elderly individual and, on a societal level, has serious implications for the health care system that must provide for them. Medical treatment at these late stages often requires dramatic and costly procedures that involve expensive technology. Despite the sophistication of modern therapeutic modalities, delayed treatment is often unable to return to the elderly patient the functional status needed to live outside of an institutionalized setting. Thus nursing home and hospital care becomes necessary. This is expensive, is associated with a poorer quality of life, and increases the patient's risk for further medical problems.

This form of caring for older Americans is difficult to justify in an era when these diseases can be prevented in their early stages (secondary prevention) or before they occur (primary prevention). There are three types of preventive strategies: (1) screening and early detection tests; (2) counseling and patient education; and (3) immunizations and chemoprophylaxis.

Screening tests identify persons at risk for a disease before it occurs. Examples include the Papanicolaou smear and the measurement of serum cholesterol in order to prevent cervical cancer and coronary artery disease, respectively. Early detection maneuvers permit more successful treatment in the initial stages of a disease, as in the detection of cancer through mammography and fecal occult blood testing. Patients respond to physician counseling by changing unhealthy practices and behaviors such as the use of tobacco and drugs; diets high in fat and salt but low in fiber; lack of exercise; and riding in an automobile without occupant restraints. A variety of conditions, primarily infectious diseases, can be prevented through immunizations and chemoprophylaxis (e.g. vaccines, drugs that lower serum cholesterol, and estrogen to prevent osteoporosis).

Preventive interventions are available to the elderly in each category, and many of these are listed in the following table. It should be emphasized at the outset, however, that (1) preventive services differ from diagnostic tests in that they are offered to healthy asymptomatic persons to prevent disease, rather than to obtain a diagnosis after the person has become ill; (2) since these interventions must be tailored to each individual's age, sex, and risk profile, not all items in this list are appropriate for all elderly persons; (3) the strength of the scientific evidence for each procedure is variable; and (4) preventive services are not the domain of only one specialty but in fact are performed by all primary care specialties (e.g. internal medicine, family practice, gynecology).

SCREENING AND EARLY DETECTION TESTS

- Measurement of serum cholesterol, a leading risk factor for coronary heart disease.

- Measurement of blood pressure, a risk factor for coronary heart disease, stroke, and kidney disease.

- Mammography screening to detect breast cancer.

- Fecal occult blood tests of the stool and sigmoidoscopy to detect cancer of the colon and rectum.

- Papanicolaou smear to detect cervical cancer.
- Digital rectal examination to detect prostate cancer.
- Measurement of height, weight, and skin-fold thickness to detect obesity, a risk factor for heart disease, diabetes, and hypertension.
- Visual acuity and auditory testing to screen for sensory deficits.
- Mental health screening to detect dementia and depression.
- Screening for alcohol and drug abuse.
- Screening for inadequate social support systems, home care, and functional status.
- Screening for podiatric disorders and incontinence.

COUNSELING AND PATIENT EDUCATION

- Self-examination instructions to detect breast and skin cancer.
- Smoking cessation counseling to prevent cancers of the lung, larynx, pharynx, oral cavity, esophagus, pancreas, kidney, and bladder; coronary artery, cerebrovascular, and peripheral vascular diseases; chronic obstructive pulmonary disease; peptic ulcer disease; and respiratory infections. (Involuntary, or passive, smoking may increase the risk of lung cancer in healthy nonsmokers and the frequency of respiratory illness among children.) (5-7)
- Exercise instructions to enhance fitness, functional mobility, and to prevent coronary heart disease and osteoporosis.
- Nutritional counseling regarding caloric balance, dietary fat, sodium, fiber, and carbohydrates to prevent heart disease, cancer, obesity, hypertension, and diabetes.
- Safety instructions to prevent injuries and death from motor vehicle crashes, household accidents, falls, and low back injury.
- Dental hygiene instructions to prevent caries, periodontal disease, and malocclusion.

IMMUNIZATIONS AND CHEMOPROPHYLAXIS

- Influenza vaccine to prevent influenza.

- Pneumococcal vaccine to prevent pneumonia.
- Tetanus and diphtheria toxoids to prevent tetanus and diphtheria.
- Estrogen to prevent osteoporosis.
- Cholesterol-lowering drugs to prevent coronary heart disease.

Detailed information about the appropriate indications for these preventive services has emerged from a strong science base. Preventive services for the elderly have been introduced into clinical guidelines based on extensive reviews of the scientific evidence by expert panels and organizations. These include the landmark papers of Frame and Carlson in 1975 (14) and Breslow and Somers in 1977 (15); the 1979 report of the Canadian Task Force on the Periodic Health Examination (16); the 1980 American Cancer Society screening guidelines (17); the report of the American College of Physicians in 1981 (18); the American Medical Association policy statement in 1983 (19); the 1987 recommendations of the Clinical Efficacy Assessment Project of Blue Cross-Blue Shield and the American College of Physicians (20); the report of the U.S. Preventive Services Task Force (21); the 1986 four-part monograph by Frame (22); and the 1987 American Heart Association report (23). Government agencies, NIH consensus development conferences (24), and many specialty organizations have also recently issued recommendations on selected screening tests of relevance to the elderly.

The impetus for these developments is the growing body of research demonstrating that preventive interventions can be more effective in saving lives than medical therapy of symptomatic persons. These findings come as no surprise. It is intuitive, for example, that altering the nutritional habits that cause atherosclerosis is a more worthwhile investment than coronary artery bypass surgery or angioplasty. Despite the compelling logic behind primary and secondary prevention, we find that the majority of U.S. health care expenditures for the elderly are nonetheless invested in tertiary prevention (attempting to prevent the progression of a disease after the patient is already afflicted).

We can no longer afford this practice. Economic pressures have placed tight limitations on health care services for the aged. It is essential that these limited resources be directed toward those preventive health care services that are more effective in reducing the individual and societal costs of disease. This has stimulated a reexamination and abandonment of ineffective diagnostic tests that clinicians have performed routinely on older Americans at great national expense (25-28). An emphasis on prevention over expensive alternatives will become especially important in future years because a greater proportion of Americans are entering the ranks of the elderly. Persons aged 75 and older represent the fastest growing segment of our population and are expected to increase an estimated 60% by the year 2000 (29). If current practices are allowed to continue, the number of nursing home patients will double in 20 years (2). Whereas currently persons over age 65 are responsible for about 30% of health care expenditures, that figure is estimated to rise to 50% by the year 2040 (1).

Although these developments are likely to orient national health policy toward prevention, perhaps the greatest stimulus for preventive health care for older Americans is coming from society itself. Public education campaigns on cholesterol, high blood pressure, Alzheimer's disease, and many other targets of prevention are increasingly apparent on television and radio broadcasts, women's magazines, and other media. Today's elderly and their families are more knowledgeable about the benefits of health promotion and which screening tests should be performed by their physicians. Medical students are being taught the principles of geriatric prevention as are practicing physicians in their continuing medical education curricula (29). Clearly the future holds the promise of prevention for the elderly and a more efficient agenda for health care in general. The next step is to insure availability of those services to all older Americans.

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SENATOR BOB GRAHAM'S OPENING STATEMENT

GOOD MORNING LADIES AND GENTLEMEN. TODAY WE WILL BE HOLDING AN OFFICIAL FIELD HEARING WITH SENATOR MITCHELL, CHAIRMAN OF THE SENATE FINANCE COMMITTEE'S SUBCOMMITTEE ON HEALTH. THE HEARING WILL FOCUS ON PREVENTIVE HEALTH SERVICES AND SPECIFICALLY ON RISK-REDUCTION AND HEALTH PROMOTION PROGRAMS FOR OLDER AMERICANS. IN JUNE OF 1985, THIS COMMITTEE HELD HEARINGS IN WASHINGTON, D.C. TO DISCUSS HEALTH PROMOTION AND DISEASE PREVENTION. THE INFORMATION HIGHLIGHTED IN THAT HEARING EFFECTIVELY REVIEWED IN DETAIL THE CONCEPT AND THE PRACTICALITY OF IMPLEMENTING PREVENTIVE HEALTH PROGRAMS FOR THE MEDICARE POPULATION.

THE GOAL OF TODAY'S HEARING IS TO EXAMINE EFFORTS TO IDENTIFY PEOPLE WHO HAVE HIGH RISKS OF DEVELOPING A CATASTROPHIC ILLNESS. WE KNOW THAT EARLY DETECTION DECREASES THE NEED FOR COSTLY INSTITUTIONALIZATION AND THUS EXTENDS THE PRODUCTIVE YEARS. OUR NATION'S MEDICAL CARE SYSTEM SHOULD REFLECT A CONTINUUM OF CARE BY USING PREVENTIVE HEALTH STRATEGIES IN ALL POPULATIONS FOR EARLY IDENTIFICATION, RISK REDUCTION, TREATMENT, AND REFERRAL TO APPROPRIATE MEDICAL AND SOCIAL SERVICES. PROLONGING INDEPENDENCE, REDUCING THE NEED OF EXTENSIVE HOSPITALIZATION, AND IMPROVING THE QUALITY OF ACTIVE YEARS CAN BE ACCOMPLISHED IF LEGISLATIVE CHANGES ARE MADE IN OUR CURRENT MEDICARE SYSTEM.

AMERICA IS GROWING OLDER. BY THE YEAR 2000, 13% OF OUR NATION'S POPULATION WILL BE OVER THE AGE OF 65, AND 1.5% WILL BE OVER THE AGE OF 85. CURRENTLY, IN FLORIDA, OVER 18% OF THE POPULATION IS OVER THE AGE OF 65. THESE OLDER AMERICANS CAN INCREASE THEIR HEALTHY YEARS AND AVOID EARLY INCAPACITATION IF TODAY WE SHIFT OUR EMPHASIS FROM MEDICAL CRISIS TO PREVENTION.

THE PREVENTION OF ILLNESS SHOULD BE THE MAJOR PREOCCUPATION OF OUR NATIONAL HEALTH CARE SYSTEM. FOR TOO LONG WE HAVE FOCUSED ON ACUTE CARE, ON CATASTROPHIC CARE. AS OUR SOCIETY AGES AND AS WE LIVE LONGER, WE HAVE BECOME INCREASINGLY PREOCCUPIED WITH INSTITUTIONALIZED HEALTH CARE. OUR ATTITUDE ABOUT HEALTH CARE IN THIS NATION SHOULD FOCUS ON "WELLNESS" AND EXTENSION OF OUR PRODUCTIVE YEARS. MOST FEDERAL GOVERNMENT PROGRAMS FOR OLDER AMERICANS HAVE BEEN CRISIS ORIENTED -- AFTER YOU ARE SICK ENOUGH TO GO INTO THE HOSPITAL, THEN A RANGE OF SERVICES BECOME AVAILABLE. I BELIEVE OUR FOCUS SHOULD BEECTION PREVENTION. HOW DO WE KEEP PEOPLE WELL ENOUGH SO THAT THEY DO NOT GO INTO THE HOSPITAL, SO THEY DO NOT HAVE TO INCUR BOTH THE GREAT PERSONAL PAIN AND FINANCIAL COSTS TO THEMSELVES AND TO THE FEDERAL GOVERNMENT?

ONE WAY TO KEEP PEOPLE WELL IS BY SCREENING FOR COMMON, POTENTIALLY DISABLING CONDITIONS. WE CAN BEGIN TO REFLECT THE

IMPORTANCE OF A HEALTHY LIFESTYLE AND AFFORDABLE MEDICAL CARE IN OUR EXISTING SYSTEM BY OFFERING PROGRAMS TO PREVENT THE TRAGEDY AND EXPENSE OF UNNECESSARY ILLNESS. PREVENTIVE SCREENINGS SUCH AS MAMMAGRAPHY, COLO-RECTAL CANCER SCREENING, GLAUCOMA SCREENING, PAP TESTS, TUBERCULOSIS SCREENING, AND IMMUNIZATIONS SHOULD BE VITAL COMPONENTS OF OUR PRESENT MEDICARE SYSTEM. THE REASON IS THAT EARLY WARNINGS FROM SUCH SCREENINGS CAN PREVENT STROKES, BLINDNESS, DIABETES, CANCER, AND OTHER POTENTIALLY DISABLING DISEASES.

COMMUNITY-BASED EARLY DETECTION AND REFERRAL PROGRAMS SUCH AS INJURY CONTROL PROGRAMS, NUTRITIONAL COUNSELING, EXERCISE/PHYSICAL THERAPY PROGRAMS, AND MENTAL HEALTH SCREENING SHOULD BE COMPREHENSIVELY WOVEN INTO OUR COMPLEX HEALTH DELIVERY SYSTEM.

THE INVESTMENT IN PREVENTION IS RELATIVELY MINOR. THE RETURN ON THAT INVESTMENT --- IN EXTENDED, PRODUCTIVE, INDEPENDENT LIVES AS WELL AS IN SAVINGS ON CATASTROPHIC HEALTH CARE COSTS-- IS POTENTIALLY ENORMOUS.

I THANK EACH WITNESS FOR TAKING TIME OUT OF THEIR BUSY SCHEDULE TO TESTIFY BEFORE THIS COMMITTEE. EACH TESTIMONY IS CRITICAL

IN DEVELOPING A NEW DIRECTION AND AN IMPROVED ORIENTATION FOR PROMOTING INDEPENDENCE FOR OUR SENIOR CITIZENS.

I WOULD REMIND EACH WITNESS THAT THEY SHOULD LIMIT THEIR ORAL PRESENTATION TO FIVE MINUTES WHICH WILL BE FOLLOWED BY FIVE MINUTES OF QUESTIONING. EACH SPEAKER WILL PROVIDE THIS COMMITTEE WITH WRITTEN DOCUMENTATION TO BE INCLUDED IN THE HEARING RECORD.

Dr. **Maidique**. Good morning. On behalf of our Center on Aging and our university, I would like to welcome all of you to the North Miami Campus of Florida International University. I am particularly deligthed that an event that is going to receive testimony on aging that I see so many young faces. I would like to welcome all the students that are here to listen to the testimony.

I particularly would like to welcome the two Senators who will be presiding over today's activities. It is rare that one of our campuses, much less just one part of the university, has 2 percent of the U.S. Senate here; and we are very proud to have them with us today. [Laugther.]

We would like to welcome in particular the chairman of the subcommittee who will hear the testimony here today, Senator George Mitchell, who will be presiding over today's activities. He is the chairman of the Health Subcommittee of the Committee on Finance of the U.S. Senate. We welcome you to our campus, Senator.

Second, I would like to welcome very own Senator Bob Graham, who is one of Florida's most popular and respected political leaders and someone who is very closely identified with our university inasmuch as his father, Senator Ernest Graham, introduced the initial enabling legislation that made possible the Florida International University.

We are particularly pleased that Senator Graham is here with us today after a very outstanding year, his first year in the U.S. Senate, and he is doing so well that he is going to break most records for progressing from junior Senator to senior Senator. [Laugther.]

[Applause.]

We are utterly impressed with that and, just judging from that first year, we can extrapolate an extraordinary future in the U.S. Senate. Senator Graham has been a great friend and supporter of our university; and it is with great pleasure that I welcome him and Senator Mitchell to the hearing today. Let us know if there is anything that we can do to help.

Senator **Mitchell**. Thank you very much. Good morning, ladies and gentlemen, and welcome to this hearing of the Senate Subcommittee on Health. I am pleased to be here today and to be joined by my distinguished colleague and your Senator, Bob Graham. This year, the American people will spend about $450 billion on health care. A large portion of that will be paid for by American taxpayers through the Medicare program, which provides health insurance to the elderly, and through the Medicaid Program, which, in partnership with the States, provides health care for the poor.

We are only now, very late and many dollars later, coming to realize that almost all of that money is spent for curative health care, that is, for taking care of people after they have become sick. Almost none of it is spent on the prevention of illness and disease, the promotion of wellness. We are now learning that it makes sense, both dollars and cents and common sense, for our society to invest a greater portion of our resources in the promotion of wellness, in the prevention of illness and disease.

Not only does it save taxpayers money, but it promotes the health, lives, welfare, and enjoyment of our people.

We are here today to find out what is happening in Florida in the area of promotion of wellness, both by public agencies and by private companies, to see if there is something we can learn here that can be used nationally, to see if we can improve the Medicare Program to make it possible for more people to enjoy longer, healthier, and better lives.

One of the reasons I am particularly pleased to be here with Senator Graham is that, in a very short time in the U.S. Senate, he has become a national leader in the area of health care, with particular emphasis on preventive care. Just a few weeks ago, his amendment to the Senate catastrophic care legislation included the concept of preventive care in a substantial way for the first time in the Medicare Program.

We expect that to become law shortly, after the Congress reconvenes later this month.

So, it is with great pleasure that I now ask for an opening statement from my colleague, Senator Graham, before we hear from the first witnesses. Senator Graham?

Senator **GRAHAM**. Thank you, Senator Mitchell. I would like to file a written opening statement for the record; but in deference to the very excellent panels we have and what I am certain will be a stimulating conversation, I will limit my opening remarks briefly to first thanking you for having made it possible for his hearing to take place.

I know that it was difficult for you to arrange your schedule to be here today, and I appreciate the effort that you have made to do so. I want to thank all of the members of the family of Florida International University for your hospitality in providing this facility and helping with the arrangements, and to thank those who will be here today to testify and those of you who are here to learn, as we will be learning, about the opportunities that are available for an enriching life for many older Americans through a greater emphasis on risk prevention, maintenance of health, and an emphasis on quality of life for all of our years.

I am very proud of the fact that our State of Florida is serving as a model for many of these issues, an we will be hearing today from some of those who are at the front lines of those experiences.

It is appropriate that we should be so. Florida today has a population of persons over the age of 65 in excess of 18 percent. It will be well into the first quarter of the 21st century before the Nation reaches that same level of population over 65. We have a population over 85 which the Nation will reach approximately in the year 2010.

So, we are full generation ahead of America in terms of our opportunity to know, understand, and respond effectively to the needs of older Americans. And if there is one thing that we know, it is that like all citizens they want to live life to its fullest, to live life in the least restrictive environment, and to have the opportunity to be as healthy and well as possible for as long as possible.

We have some excellent models of how all those objectives can be accomplished. We are going to hear from a number of those today. I know that this is not the beginning because Senator Mitchell has been concerned about this issue for a number of years in the Senate. Steps have already been taken, but my hope is that this will further accelerate the movement towards a complementary program of risk reduction and maintenance of health to the traditional crisis intervention orientation of most of our Federal health care policies.

Again, thank you, Senator Mitchell. I look forward to a very exciting morning.

Senator **MITCHELL**. Thank you, Senator. You commented on how difficult it was for me to arrange my schedule to be here. Considering the weather in Maine, it was not as difficult as you might think. [Laughter.]

We will now hear from the first panel, and I will ask all three of them to come up at the same time: Dr. Carl Eisdorfer, chairman of the Department of Psychiatry, University of Miami Medical School; Dr. Carolee A. DeVito, Director of Planning and Evaluation, South Shore Hospital in Miami Beach; and Josefina Carbonell, Director Little Havana Activities and Nutrition Center in Miami.

Welcome, Dr. Eisdorfer, Dr. DeVito, and Ms. Carbonell

I will, at the outset, state the rules of the subcommittee's proceedings for your benefit and those of the witnesses who will follow. As you have been advised under the subcomittee's rules of procedure, your written statements will be included in full in the hearing record, which will be compiled following today. We ask that you limit your oral remarks to 5 minutes so that we can have an opportunity to ask questions and have some exchange of views among the witnesses as well.

I will take you in the order that you are listed on the agenda. So, we will begin with Dr. Eisdorfer. Welcome. We look forward to hearing from you.

STATEMENT OF DR. CARL EISDORFER, CHAIRMAN, DEPARTMENT OF PSYCHIATRY, UNIVERSITY OF MIAMI MEDICAL SCHOOL, MIAMI, FL

Dr. **EISDORFER**. Thank you. I am Dr. Carl Eisdorfer, Director of the Comprehensive Center on Aging at the University of Miami, I am delighted to be here with our fraternal and sister organization at FIU. As you pointed out, I am also a professor and Chairman of Psychiatry at the Medical School and Professor of Psychology.

The need for improved psychological and psychiatric screening of older persons is a matter of serious concern for those of us interested in health care among the elderly.

Older Americans have the highest per capita abuse of medication of all sorts, including psychotropic drugs. Dementia, as in Alzheimer's disease, or multiinfarct dementia, afflicts about 10 percent of our elderly individuals, maybe as high as 15 percent. It has a disastrous effect on them and also their families, spreading the effect of this tragic illness. Family members of older demented patients who care for their relatives at home—this resulting in a major saving in the cost of health care for the United States—are themselves at extraordinarily high risk for depression; and in one study, over 50 percent of relatives—primarily caring for dementia victims at home—were clinically depressed.

Screening and intervention with this group alone could result in major savings—forgetting the humanitarian issues—just by preventing older persons from serious functional disability with the result that both the giver of care and the target patient wind up needing intensive, often institutionally based services.

Psychotropic drugs, most often prescribed by nonpsychiatrists in the United States, have been shown to play a major role in falls, often resulting in fractures and so on, again by older persons, again a major health hazard and a major medical expense.

The worried well: this is a group that does not have formal psychiatric illness, but one that is characterized by anxiety and high bodily concern. A high proportion of the elderly have been reported to make up a significant proportion of all medical outpatient visits.

Psychiatric and psychological review and intervention is demonstrably capable of making a significant improvement in individual symptoms and the patient's perceived need and utilization of care.

Alcohol and substance abuse is a significant problem at any age and certainly among the elderly, contrary to popular opinion. Failure to attend to the excessive use of readily available medications, such as that provided in liquor stores, over the counter in pharmacy sections of supermarkets and drug stores, as well as self-medication, trading of medication, the use of old medication, can lead to significant problems. All of these could be ascertained in focused evaluations in a preventive way and secondary, or even primary, prevention of a host of medical disorders would ensue.

Clearly, in alcoholism and substance abuse and for the worried well—areas that we really have not touched with preventive programs—psychological and psychiatric intervention can—and has demonstrably reduced—sick days and medical care costs dramatically.

This is shown in a number of studies and recently reviewed in an article in Psychology Today, as recently as August of 1987; I have supplied that information to the committee.

Senator **Mitchell**. You have identified the studies to which you have just referred?

Dr. **Eisdorfer**. Yes, sir. Other studies have shown that significant mental health problems, particularly among the elderly, may present as medical problems. Depression, typically among the elderly, present as loss of sleep, loss of appetite, constipation, increased reports of pain and lethargy, as only one example.

Conversely, in many instances, psychological states like dementia may reflect a treatable medical condition if caught early enough. Indeed, that is one of the programs at the University of Miami School of Medicine and in concert with the Mount Sinai Medical Center. Here, a subsidy from the State of Florida initiated a couple of years ago has played a major catalytic role in funding a memory disorders program that exists at two different sites in south Florida and has been enormously effective.

The importance of early detection—I should paraphrase that and take another 30 seconds—was done under a prior governorship of Florida; and I forget the name of the gentleman who was responsible. [Laughter.]

The importance of early detection and intervention—but he was an Alzheimer's Disease expert. [Laughter.]

The importance of early detection and intervention of serious mental health problems cannot, in my opinion, be too strongly addressed. Suicide, often a direct result of depression, is substantially increased among elderly men, particularly elderly Caucasian males over the age of 65 and 75. It is four to six times higher than among younger men; and that is easily recognized, at least that kind of depression where we can intervene.

Severe suspiciousness related to such disorders of paraphrenia can be detected and treated on an outpatient basis before the condition creates so serious a psychological and social problem that the person is forced out of his or her home and into an institution.

Of major interest, too, is the fact that hearing loss and communication deficits often are major contributors to this paranoia, and that also can be detected and intervened. Clearly, a program looking at hearing loss could play a crucial role.

Mental health intervention not only affects psychiatric problems directly, but health costs more broadly. In a review I have also supplied you with, the American Journal of Psychiatry studied Blue Cross and Blue Shield Federal employees plans and showed that outpatient psychotherapy substantially reduced the cost not of psychiatric but of all medical care, particularly among the oldest part of the population, particularly inpatient care.

In closing, let me just say the following.

The inseparability of the head and mind from the rest of the human body is once again reaffirmed. Mental health evaluations and, when necessary, intervention do and can play a tremendously important role in improving the quality and the quantity of life and in reducing health care costs.

I thank you for your interest, and I support the proposal of including such intervention in a broadly based program of health screening for all older Americans. Thank you, Mr. Chairman.

Senator MITCHELL. Thank you very much, Dr. Eisdorfer.

[Applause.]

Senator MITCHELL. Dr. DeVito.

[The prepared statement of Dr. Eisdorfer and the prepared information follow:]

TESTIMONY
CARL EISDORFER, PH.D, M.D.
UNIVERSITY OF MIAMI
JANUARY 6, 1988
MIAMI, FLORIDA

SENATE FINANCE COMMITTEE HEARING ON RISK -REDUCTION AND HEALTH PROMOTION FOR OLDER PEOPLE

Mr. Chairman:

I am Dr. Carl Eisdorfer, Director of the Comprehensive Center on Aging of the University of Miami, Professor and Chairman of the Department of Psychiatry and Professor of Psychology. I am honored to be able to appear at this hearing.

The need for improved psychological and psychiatric screening of older persons is a matter of serious concern for those of us interested in the health care of the aged. Older Americans have the highest per capita use of medication of all sorts including psychotropic drugs. Dementia as in Alzheimer's Disease or Multi Infarct Dementia afflicts about 10% of our elderly individuals and has a disastrous impact upon them and their families. Family members of older demented patients who care for them at home resulting in a major savings in the cost of health care nationally are themselves at high risk for depression and as much as 50% of persons primarily caring for dementia victims at home have been shown to be clinically depressed. Screening and intervention of this group alone could be a major saving in preventing older persons from serious functional disability with the result that both the giver of care and the target patient both need intensive, often institutionally based services.

Psychotropic drugs most prescribed by non-psychiatrists have been shown to play a significant role in falls by older persons-again a major health hazard and major medical expense.

The worried well - characterized by anxiety and high bodily concern reportedly make up a significant portion of medical outpatient visits with psychological and psychiatric review and intervention, capable of making a significant improvement in symptoms and the person's perceived need for care.

Alcohol and substance abuse problems are a significant issue at any age and failure to attend to excessive use of readily available medications such as that provided in liquor stores, over the counter in pharmacy sections of supermarkets and drug stores as well as self medication or trading of medications can lead to other significant problems. All of these could be ascertained in focussed evaluations and secondary or even primary prevention of medical disorders would ensue.

Clearly in Alcoholism, in substance abuse and for the worried well, psychological and psychiatric approaches to treatment reduce sick days and medical costs dramatically. This has been shown in a number of studies and recently reviewed in Psychology Today, (Help for the Worried Well- Carol Turbington, Psychology Today, August 1987, Pg 43-45.)

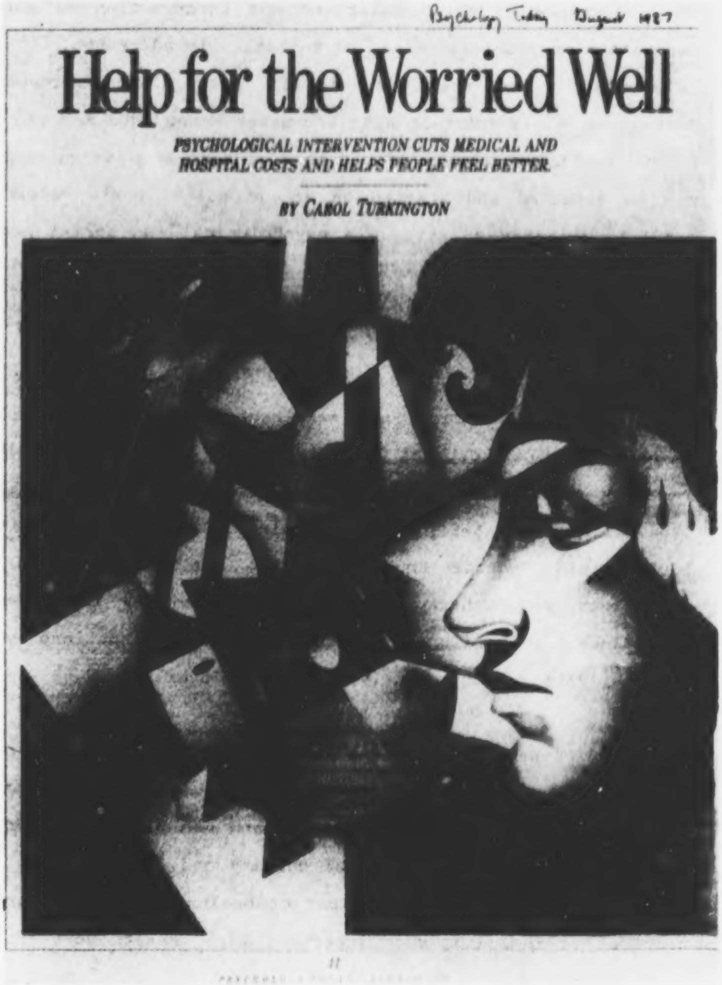
Other studies have shown that significant Mental Health problems, particularly among the elderly may present as medical problems. Depression with its associated loss of Sleep, loss of appetite, constipation, increased reporting of pain and lethargy is only one example. Conversely in many instances dementia - a psychological state of loss of memory and cognition may reflect a treatable medical condition if caught early enough - indeed that is one our programs at the University of Miami and in concert with the Mt. Sinai Medical Center - here the subsidy from the State of Florida instated a couple of years ago has played a major catalytic role.

The importance of early detection and intervention of serious mental health problems cannot be too strongly addressed.
It should be noted too that suicide - often a direct result of depression - is substantially increased among aged men and that severe suspiciousness relatable to disorders such as paraphrenia can be detected and treated on an outpatient basis before the condition creates so serious a psychological and social problem that the person is forced out of their home and into an institution.

Mental Health interventions not only affect psychiatric problem directly but health care costs more broadly. In a review reported in the American Journal of Psychiatry in October 1984, 58 research studies were reviewed by Mumford et al (Am J Psychiatry, 1988,141 (10)P.1145-58) as were claims filed for Blue Cross and Blue Shield Federal Employees Plan. The later showed that outpatient psychotherapy significantly reduced the cost of medical care primarily through the reduction of inpatient medical hospitalizations particularly among those over 55.

Thus the inseparability of the head and mind from the rest of the human body is once again reaffirmed. Mental health evaluations and where necessary intervention do and can play a tremendously important role in improving the quality and indeed the quantity of life and in reducing the cost of health care. I support the proposal of including such intervention in health screening for older Americans.

Thank you for the opportunity of speaking with you.



Psychology Today August 1987

Help for the Worried Well

PSYCHOLOGICAL INTERVENTION CUTS MEDICAL AND HOSPITAL COSTS AND HELPS PEOPLE FEEL BETTER.

BY CAROL TURKINGTON

The surprising fact is that as many as two-thirds of patient visits to the doctor are made by the "worried well," people psychologists call "somatisisers." But because the patients and the physicians are unwilling or unable to see the problem's emotional component, patients trek from physician to hospital and back again, searching for a pill, a shot or an operation that will stop the hurting.

Psychologist Nicholas Cummings, who founded the Biodyne Institute, says, "Some patients spend as much as $28,000 a year in a fruitless attempt to isolate a physical cause for what is basically an emotional problem. . . . On some days these patients saw four different physicians." Cummings says he never disputes the reality of patients' difficulties. "I can say with all honesty: 'I know you hurt. But as long as you're here, tell us a bit more about you.'" The psychological treatment often helps somatisizers when others have failed. After only four sessions at Biodyne, for example, Sadie's headaches disappeared.

In dozens of studies over the last 30 years, researchers have found that providing psychological care to patients like these can cut medical costs anywhere from 5 to 80 percent by reducing expensive visits to physicians. These savings have been documented with a variety of patients in health maintenance organizations and with private patients. The psychological treatments range from traditional psychotherapy of various kinds to behavioral interventions such as biofeedback, visualization and other stress-reduction techniques.

One just completed study at Harvard University suggests that psychological treatment for patients may cut subsequent health-care visits almost in half. Researcher Caroline Hellman and colleagues studied 80 patients who belonged to the Harvard Community Health Plan (HCHP). They had two types of problems—physical symptoms with no known organic basis or physical illnesses with an organic cause that are influenced by psychological factors. These two categories account for an estimated 50 to 75 percent of the patients seen by general practitioners. Specific problems included hypertension, shortness of breath, indigestion, diarrhea, headaches, dizziness, sleep problems, eating or weight problems and anxiety, stress and tension. During the six months before the study, these patients visited the health plan more than twice as often on the average as other HCHP members.

> *IN ALCOHOLISM TREATMENT PROGRAMS, PSYCHOTHERAPY REDUCED SICK DAYS AND MEDICAL COSTS DRASTICALLY.*

The researchers divided the patients into three groups. One followed the "Ways to Wellness" program developed at HCHP; another took part in the "Mind-Body Group" program developed at Beth Israel Hospital in Boston. Both of these groups met for six weekly sessions during which they were taught visualization and ways of reframing attitudes; they also received relaxation and awareness training.

The third group met for two sessions, in which the patients learned about the relationship between stress and illness and were given stress-management exercises to do at home. The researchers used this group to compare the benefits of receiving only information, combined with the expectation of helpful treatment, against the benefits of more intensive group training and participation.

Immediately after the study ended, all patients felt better physically and psychologically. As time passed, however, only those in the first two groups maintained or increased their improvement. They also used health-plan services less frequently. Comparing six months before treatment and six months after, patients in the first two groups cut their visits to the HCHP by 47 percent. Patients in the third group increased their visits 28 percent.

The potential savings to the health plan during these six months, according to Hellman, ranged from $171 to $252 for each patient. In addition, Joan Borysenko, associate director of the behavioral medicine division at Beth Israel, reports that the Mind-Body program also helped patients with insulin-dependent diabetes by lowering blood glucose and gave cancer patients a greater sense of control and reduced their stress.

One reason for doing studies like these at Harvard and in Hawaii is to see whether psychological care is cost-effective; that is, is the cost of providing mental-health care offset by savings in other medical services? Patrick DeLeon, a psychologist who is administrative assistant to Sen. Daniel Inouye of Hawaii, expresses the idea simply: "To prove that psychotherapy is cost-effective, you have to show what kinds of therapy work under what conditions and with what kinds of patients. The essence of being cost-effective is proving that what you are doing works."

The research findings are consistent, says Bryant Welch, an associate executive director of the American Psychological Association. "If you use prompt psychological interventions, you can make a substantial decrease in patient population needs to use more expensive treatment. All the data indicate that psychological services are cost-effective. There are some discrepancies as to how much."

One reason for the discrepancies is that different symptoms and problems respond differently to various kinds of therapy. Psychologist Robert Rosen of the Washington Business Group on Health (WBGH), an organization whose members include 200 large corporations, offers this example: "If someone is experiencing acute depression, a combination of drugs and psychotherapy is likely to produce greatest gains in reducing medical costs. But for phobias, behavioral or cognitive intervention may be the most cost-effective. It depends on what kind of problem you have and what kind of therapy you're offering."

Alcohol- and drug-abuse problems are major causes for absence and accidents in the workplace. Rosen, who is director of the Institute on Organizational Health at WBGH, points out, "If you treat someone for substance abuse, they are more likely to stay out of the hospital. In general, if the benefits and therapy are properly designed, and there is a good match between the type of therapy and the problem, you can [offset the cost of therapy by] reducing medical expenditures."

Sadie has suffered with intractable headaches ever since her husband fatally shot himself in the head 15 years ago after she divorced him. But no physician could find anything physically wrong with her. Test after test uncovered nothing, bills piled up—yet the headaches continued. Physicians took to shaking their heads over her voluminous chart and began to tell Sadie bluntly: "There's nothing wrong with you. It's all in your head."

But Sadie's pain was very real. When she finally arrived at the Biodyne Institute, a mental-health facility in Hawaii, she brought with her a grocery bag filled with 43 drugs she was taking for her headaches. Such desperate searching is not unusual.

ILLUSTRATIONS BY JOHN JINKS

When Kenneth Jones and Thomas Vischi looked at 12 studies of alcoholism treatment programs for the Alcohol, Drug Abuse and Mental Health Administration, they found that therapy cut medical care 26 to 69 percent and reduced the number of sick days 38 to 47 percent. In one example, the Philadelphia Police Department estimated that it saved about $1,000 in health-care costs for every inpatient who was treated for alcoholism.

Sociologist Emily Mumford and four colleagues analyzed 58 studies of how psychological treatment affected patients' later medical costs and reviewed claims files for a Blue Cross and Blue Shield Federal Employees Plan. They found that 85 percent of the studies "reported a decrease in medical utilization following psychotherapy." The researchers concluded that the evidence they found "argues specifically for the likelihood that mental-health treatment may improve patients' ability to stay healthy enough to avoid hospitalization for physical illness."

> *PSYCHOLOGICAL INTERVENTION CUT HOSPITAL STAYS AFTER MAJOR SURGERY BY AN AVERAGE OF TWO DAYS*

Sociologist Harold Holder and James Blose completed a four-year study in 1985 for the National Institute of Mental Health in which they compared the health-care costs of two [illegible] before and after treatment. Holder and Blose found that during the three years before [illegible] was $493. Once treatment started, the cost decreased quickly and considerably to a monthly average of $239 during the first six months and of $137 three years later.

"The overall finding of a significant drop in total health-care costs following initiation of mental-health treatment," Holder and Blose concluded, "is consistent with much of the prior research."

Another study at the former United States Public Health Service Hospital in Baltimore demonstrated both the long-term effectiveness and potential cost-effectiveness of biofeedback treatment. According to Eileen Mager, one-time director of the Psychophysiologic Clinic at the hospital, patients treated in the clinic made about 30 percent fewer visits to the clinic in the [illegible] years following treatment than they had before treatment.

Several studies also suggest that since older people generally use more medical care, of a more expensive kind, than young people do, the cost benefits of psychological intervention increase with age. In their research, for example, Holder and Blose found that the most significant drop in health-care costs occurs for the treated people age 65 and over and the least for those under 45.

The benefits of therapy aren't restricted to diseases with an obvious psychological component. Writing in the *American Journal of Public Health*, psychologist Herbert Schlesinger and four colleagues reported that a recent study of diabetes, ischemic heart disease, hypertensive heart disease, asthma and emphysema showed that the use of mental-health services reduced medical costs. Reviewing 13 other studies, Mumford, Schlesinger and psychologist Gene Glass also found that psychological intervention cut hospital stays after major surgery by an average of two days.

Why does counseling affect what seem to be purely physical problems? Psychologist George Everly Jr. suggests that we do not yet fully understand the link between mind and body. Everly, a visiting scholar at Harvard University, is studying why behavioral interventions seem to work with a host of seemingly disparate somatic and mental disorders. He believes a number of diseases (including hypertension, migraines, peptic ulcers, Reynaud's disease, irritable bowel, anxiety and adjustment problems) are "disorders of arousal" that originate in the limbic system of the brain and are thus helped by relaxation strategies. These disorders respond to behavioral interventions not only because they have a "common pathogenic thread," he believes, but because the treatment makes patients take an active part in their own health care.

Everly believes that applying one kind of therapy to a variety of disorders is more cost-effective than using different approaches for each. He has found, for example, that many patients do better no matter which stress-reduction technique he uses.

"You can't disallow the placebo effect," he admits, "but there is a common therapeutic thread among these disorders that responds to stress reduction. And it is clearly possible that certain behavioral techniques are cost-effective . . . by making the patient an active participant in his own care. Training patients to use behavioral techniques instead of visiting their doctor could greatly reduce costs.

"The best thing that could happen," Everly concludes, "is the hospital is there, and there is no need for anyone to come."

Carol Turkington is a science writer who lives in Reading, Pennsylvania. She was formerly a staff writer with The APA Monitor.

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HELP ON THE JOB

The operator working his sheet metal press that day was angry, upset and distracted. He was having trouble at home, caused in part by alcohol, and his supervisor had just blamed him for something that wasn't his fault. To make matters worse, he hadn't quite recovered from the effects of the drinking he had done last night and several nights before that.

Although he was an experienced operator, distraction and fatigue threw off his timing. Before he realized it, the three-ton press had clipped off part of his thumb. Physicians and physiotherapists finally restored use of his hand, but only after nine weeks of missed work and costly rehabilitation.

Accidents like this cost U.S. businesses more than $32 billion each year in disability payments, workers' compensation, lost productivity and poor morale, according to the St. Paul Fire and Marine Insurance Company. Research confirms that most workplace accidents result from the inability of people to cope with stress.

In response to a growing understanding that how an employee feels affects performance on the job and, ultimately, company profits, businesses across the country have begun to offer counseling through Employee Assistance Programs (EAP's). While the first programs usually concentrated on alcoholism treatment, today's 5,000 or so EAP's address a wide range of problems from child-care to emotional distress.

Some companies provide little more than a desk and someone to refer employees to psychologists and other professionals in the community. Other companies provide counseling services on site or contract for outside services. According to Willis Goldbeck, president of the Washington Business Group on Health, comprehensive programs include physical fitness, cardiovascular risk reduction, hypertension control, nutrition, smoking cessation and stress management. Many programs add CPR, life-style education, time management and other ways to manage one's life in a healthier fashion.

Although companies start programs for many reasons, the most important is usually to cut costs. Do they pay off? Goldbeck says that screening its employees for colon and rectal cancer costs the Campbell Soup Company about $25,000 a year. But a single employee death from such cancer costs the company about $64,000 in medical expenses and benefits. "They do not have to go too much further to know that for each life saved—a social good—there is a big corporate financial gain."

Numerous studies have shown that counseling and the other programs offered by EAP's help companies reduce absenteeism, decrease employee turnover and lessen health-care expenses. According to Goldbeck, a Kimberly-Clark EAP cut work accidents 70 percent. A five-year Dupont study found that the average annual benefit to the company from an alcoholism program was more than $400,000. Smoking cessation programs in various companies produce immediate savings in janitorial costs and fire insurance.

"In short," Goldbeck concludes, "wellness programs, quite apart from the benefit to the individual and the broader 'social good,' are in the corporation's financial self-interest."

RESOURCES

Executive Women: Substance Plus Style

Men and Women of the Corporation. R.M. Kanter. Basic Books, 1979, $10.95.

Moving Up: Women in Managerial Careers. A. Harlan and C. Weiss. Working Paper no. 86, Wellesley College, Center for Research on Women, September 1981, $6.

Human Resource Management. Special issue on women in management. Vol. 26, No. 2.

The Making of a Manager

Making Groups Effective. A. Zander. Jossey-Bass, 1982, $19.95.

Effective Small Group Communication. E.G. Bormann and N.C. Bormann. Burgess, 1980, $12.70.

A Sound Mind in an Unsound Body

Chronically Ill Children and Their Families: Today's Challenge to Health and Education. N. Hobbs, J.M. Perrin and H.T. Ireys. Jossey-Bass, 1985, $27.95.

The Damocles Syndrome: Psychosocial Consequences of Surviving Childhood Cancer. G.D. Koocher and J.E. O'Malley. McGraw-Hill, 1981, $27.95.

"Does pediatric home care make a difference for children with chronic illness? Findings from the Pediatric Ambulatory Care Treatment Study." R.E.K. Stein and D.J. Jessop in *Pediatrics*, Vol. 73, pp. 845-853.

"Education and Chronically Ill Children." S.C. Ashcroft, ed. A special issue of the *Peabody Journal of Education*. Vol. 61, pp. 1-129.

"CHIP: The Chronic Health Impaired Program of the Baltimore City Public School System." J. Case and S. Matthews in *Children's Health Care: Journal of the Association for the Care of Children's Health*, Vol. 12, pp. 97-99.

Help for the Worried Well

Minding the Body, Mending the Mind. J. Borysenko. Addison-Wesley, 1987, $14.95.

"A new look at evidence about reduced cost of medical utilization following mental health treatment." E. Mumford et al. in *The American Journal of Psychiatry*, Vol. 141, pp. 1145-1158.

"Mental health treatment and medical care utilization in a fee-for-service system: Outpatient mental health treatment following the onset of a chronic disease." H.J. Schlesinger et al. in *American Journal of Public Health*, Vol. 73, pp. 422-429.

Pain's Gatekeeper

The Challenge of Pain. R. Melzack and P.D. Wall. Basic Books, 1983, $20.45; paper, $10.95.

"Pain mechanisms: A new theory." R. Melzack and P.D. Wall in *Science*, Vol. 150, pp. 971-979.

The Psychology of Pain. R.A. Sternbach, ed. Raven Press, 1987, $29.50.

"The myth of painless childbirth." R. Melzack in *Pain*, Vol. 19, pp. 321-337.

The Textbook of Pain. P.D. Wall and R. Melzack, eds. Churchill Livingstone, 1984, $120.

Pain and Behavioural Medicine. D.C. Turk, D. Meichenbaum and M. Genest, eds. Guilford Press, 1983, $40; paper, $25.

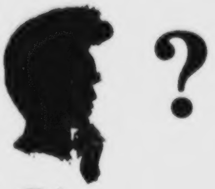
Boys Will Be Boys, Girls Will Be . . .

"Androstenedione may organize or activate sex-reversed traits in female spotted hyenas." S.E. Glickman et al. in *Proceedings of the National Academy of Sciences*, Vol. 84, pp. 3444-3447.

"Social organisation of the spotted hyaena (*Crocuta crocuta*)." L.G. Frank in *Animal Behaviour*, Vol. 35, pp. 1500-1527.

"Sin, sickness, or status? Homosexual gender identity and psychoneuroendocrinology." J. Money in *American Psychologist*, Vol. 42, pp. 384-399.

"Hormones, emotional dispositions, and aggressive attributes in early adolescents." E.J. Susman et al. in *Child Development*, Vol. 58, pp. 1114-1134.



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THE AMERICAN JOURNAL OF PSYCHIATRY

A New Look at Evidence About Reduced Cost of Medical Utilization Following Mental Health Treatment

Emily Mumford, Ph.D., Herbert J. Schlesinger, Ph.D., Gene V. Glass, Ph.D.,
Cathleen Patrick, Ph.D., and Timothy Cuerdon, B.A.

Meta-analysis of 58 controlled studies and analysis of the claims files for the Blue Cross and Blue Shield Federal Employees Plan for 1974–1978 provide mutually supporting evidence of the cost-offset effects of outpatient mental health treatment. These two complementary resources provide a powerful tool for investigating the nature of associations between mental health services and subsequent reductions in the use of other medical services. The authors found that the reductions in use of medical services are associated with inpatient rather than with outpatient utilization and tend to be larger for persons over 55 years of age.

(Am J Psychiatry 141:1145–1158, 1984)

The literature on the phenomenon that the cost of outpatient psychotherapy may be offset by savings in medical expenditures began with a West German study of persons who had psychoanalysis or psychoanalytic psychotherapy and whose use of hospitalization for a 5-year period was less than that of a control group (1). This study and the subsequent literature were reviewed by Jones and Vischi, who concluded that the effect of psychotherapy was to reduce use of medical services by about 20% (2). A meta-analysis of 15 controlled offset studies up to 1978 that included some reviewed by Jones and Vischi yielded an estimate of the cost-offset effect between 0% and 14% (3). The range of estimates reflects methodologic flaws in many studies.

A meta-analysis of controlled studies of the effect of "psychologically-informed intervention" on patients following heart attack or facing surgery showed that patients provided with information—about their condition, what to expect, and how to further recovery—or who were given emotional support did better than control subjects on most outcome indicators (4). Thirteen of these experimental studies included days in hospital as an outcome indicator, and their combined results showed that psychologically treated patients were discharged about 2 days sooner than were persons not so treated. Devine and Cook, from a meta-analysis of 49 controlled experiments of the effects of psychoeducational interventions with surgical patients, reported 1.31 fewer hospital days for patients receiving mental health services than for patients provided only the usual medical management (5).

Since our last review of the cost-offset literature in 1978, the number of controlled studies has increased to 58 suitable for meta-analysis (1, 6–62). It is feasible now to study the variables associated with reduced medical utilization following mental health treatment. A second resource, the massive fee-for-service research data base derived from the health insurance claims files of the Blue Cross and Blue Shield Federal Employees Program (FEP), provides a complementary perspective for studying the same variables. When we use these two large sets of data, each with special strengths that may compensate for weaknesses in the other, we can attempt to answer the same questions from two distinctly different perspectives.

METHOD I: META-ANALYSIS OF THE COST-OFFSET LITERATURE

Meta-analysis is a quantitative procedure for summarizing findings across studies (4, 63). It makes use of any of several summary statistics that convert diverse

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TABLE 1. The Characteristics and Findings of 58 Studies of Effects of Outpatient Psychotherapy on Subsequent Medical Care Utilization

	Patient Data					Outcome Measure	
	Age (years)[b]						
Study[a]	Range	Mean	Sex	Setting	Intervention	Outpatient	Inpatient
Andrew (6)[e]	24–75	54	M	Inpatient surgery	Instruction		Days
Archuleta et al. (7)[f]	15–70	45	M/F	All inpatient sites	Instruction		Days
Budd et al. (8)[f]	23–63	49	M/F	Inpatient surgery	Instruction		Intensive care days Hospital days
Budman et al. (9)[g]	—	21+	M/F	Health maintenance organization (HMO)	Short-term group therapy	Cost Visits[h]	
Budman et al. (10)[g,i]	21–56	31	M/F	HMO	Short-term group therapy Therapy dropouts	Cost Visits[h] Cost Visits[h]	
Christopherson et al. (11)[f]	34–71	55	M	Inpatient surgery	Instruction		Intensive care days Hospital days
Cohen (12)[f]	21–65	—	M/F	Inpatient surgery	3 types of instruction		Days
Davis (13)[e]	—	—	M/F	Inpatient surgery	Crisis intervention		Days
Delong (14)[f]	23–64	44	F	Inpatient surgery	Instruction		Days
Duehrssen et al. (1)[g]	—	25+	M/F	Outpatient clinic	Psychoanalysis		Days
Edwards et al. (15)[g]	17–40	29	M	Navy alcohol rehabilitation center	Alcohol counseling	Sick days	Hospital days
Egbert et al. (16)[e]	—	52	M/F	Inpatient surgery	Instruction		Days
Fink (17)[g]	—	—	M/F	HMO	Psychiatric consultation	Visits[h]	
Felton et al. (18)[e]	19–71	—	M/F	Inpatient surgery	Instruction Emotional support		Days
Florell (19)[e]	—	—	M/F	Inpatient surgery	Emotional support Emotional support plus instruction		Days
Follette et al. (20)[g] (1st- and 5th-year results only)	24–62	38.1	M/F	HMO	Psychotherapy: 1 visit 2–8 9+	Visits[h]	
					1 visit 2–8 9+		Days
Fortin et al. (21)[e]	20–59	—	M/F	Inpatient surgery	Instruction		Days
Goldberg et al. (22)[g]	All ages	—	M/F	HMO	Short-term psychotherapy	Doctor visits Lab and X-ray visits	
Goldberg et al. (23)[g]	6–65+	—	M/F	HMO	Short-term psychotherapy	Visits[h]	Days
Goldensohn et al. (24)[g]	0–65	—	M/F	HMO	Short-term psychotherapy	Doctor visits Specialist visits Lab and X-ray visits	
Graves et al. (25)[g]	0–21		M/F	Health clinic	Short-term family therapy	Visits[h]	
Gruen (26)[e]	40–69	—	M/F	Inpatient cardiology	Short-term counseling		Days
Hankin et al. (27)[g] (average of 1st and 2nd years versus 4th and 5th years)	All ages		M/F	HMO	Diagnostic visit ⋮	Doctor visits Lab and X-ray visits	

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	Psychotherapy Group Mean (±SD)			Control Group Mean (±SD)				
N	Pre	Post	% Change	N	Pre	Post	% Change	% Difference[a]
22		6.32		18		6.78		−6.8
248		7.49 (±5.70)		267		6.90 (±3.91)		+8.6
16		4.1		15		6.0		−31.7
16		9.3		15		11.2		−17.0
93	59.61	71.95	+20.7	93	35.42	54.39	+53.6	−32.9
93	3.9	6.7	+71.8	93	2.6	4.7	+80.8	−9.0
43	$6.86	$6.55	−4.5					−4.5
	2.94	2.41	−18.0					−18.0
24	$12.70	$7.29	−42.6					−42.6
	4.10	2.38	−42.0					−42.0
29		3.2		12		4.7		−31.9
29		11.1		12		13.3		−16.5
40		3.93		37		4.05		−3.2
37		3.72						−8.1
39		3.82						−5.7
13		5.0 (±4.7)		13		6.5 (±3.8)		−23.1
31		6.17		33		7.18		−14.1
125	5.2	1.2	−77	100	5.1	4.8	−5.9	−71.1
148	28.0	15.1	−46.1					−46.1
	13.0	7.0	−46.2					−46.2
46		3.8		51		6.5		−41.5
134								−50
25		11		25		14		−21.4
12		14						0
30		4.90 (±1.71)		50		6.10 (±2.3)		−19.7
70		4.33 (±1.11)						−29.0
80	11.4	4.4	−61.4	152	11.4	12.9	+13.2	−74.6
41	19.0	5.7	−70.0					−83.2
31	11.6	5.7	−50.9					−64.1
80	1.46	0.63	−56.8	152	2.13	2.01	−5.6	−51.2
41	1.61	0.85	−47.2					−41.6
31	4.94	0.68	−86.2					−80.6
37		6.35		32		6.44		−1.4
256	4.94	3.42	−30.7					−30.7
	3.11	2.18	−29.8					−29.8
[illegible]83	5.27 (±3.12)	5.23 (±3.12)	−.7	483	4.67 (±4.92)	5.03 (±4.92)	+7.7	−8.4
	0.99	0.38	−61.6		0.46	0.62	+34.8	−96.4
[illegible]	3.8	3.4	−10.5	141	4.6	4.8	+4.3	−14.8
	2.0	1.7	−15.0		1.3	1.6	+23.1	−38.1
	10.3	[illegible]	25.2		8.9	11.4	+28.1	53.3
	5.8	3.7	36.2	21	4.7	6.1	+29.8	66.0
		22.5 (±3.44)		35		24.9 (±10.65)		9.6
	5.23	5.14	1.7	8,562	3.82	3.89	+1.8	3.5
	4.75	5.13	14.3		3.51	3.89	10.8	3.5

[illegible]

[illegible]

	Age					Outcome Me	
Study	Range	Mean	Sex	Setting	Intervention	Outpatient	
[illegible]	[illegible]		M/F	[illegible]	[illegible]		
[illegible]				[illegible]	[illegible] instruction		
Hitchcock (30)	18–70	39	M/F	Inpatient surgery: Cholecystectomy	Instruction Emotional support		D
	—			Herniorraphy	Instruction Emotional support		Days
Jacobson et al. (31)[g]	—	—	M/F	Air Force hospital	Instruction		Ad sions
Jameson et al. (32)[c]	—	40+	M/F	Fee-for-service psychiatry (Blue Cross)	Short-term psychotherapy	Cost/month[h]	
Johnson et al. (33)[c]	21–70	44	M/F	Inpatient surgery: cholecystectomy	5 types of instruction		Days
Johnson et al. (34)[c] (replication study with former sample as controls)	21–70	46	M/F	Inpatient surgery: cholecystectomy	5 types of instruction		Days
Kennecott (35)[g]	—	21+	M/F	Counseling center	Counseling	Costs[h]	
Kessler (36)[g]	All ages	—	M/F	HMO	Short-term psychotherapy	Visits[h]	
Kogan et al. (37)[f] (2 years pre versus 2 years post)	—	—	M/F	HMO	Short-term psychotherapy	Visits[i]	
Langer et al. (38)[c]	—	—	M/F	Inpatient surgery	Emotional support Instruction Both		Days
Levitan et al. (39)[f]	—	65+	F	Inpatient surgery	Liaison psychiatry		Days
Lindeman et al. (40)[c]	16–60+ 5–15	— —	M/F	Inpatient surgery	Instruction		Days
Lindeman et al. (41)[f]	15+	50	M/F	Inpatient surgery	Instruction		Days
Longobardi (42)[g]	—	23.6	M/F	Military health clinic	Short-term psychotherapy	Visits[h]	
Lucas (43)[c]	26–60	52.2	M	Inpatient surgery	3 types of emotional support		Days
Lunn (44)[c]	—	—	M/F	Fee-for-service health clinic	Alcohol counseling	Days lost Sick claims Cost of claims	
McHugh et al. (45)[g]	—	—	M/F	Mental health center	Short-term psychotherapy	Visits[h]	
Mechanic et al. (46)[g]	—	18+	M/F	Fee-for-service psychotherapy	Short-term psychotherapy	Visits[h]	
Olbrisch (47)[f]	18–25	—	M/F	College health clinic	Instruction	Visits[h]	Admissions

	Psychotherapy Group Mean (±SD)				Control Group[c] Mean (±SD)			
N	Pre	Post	% Change	N	Pre	Post	% Change	% Difference[d]
20		12.5 (±1.47)		20		12.3 (±1.66)		+1.6
10		3.37 (±0.92)		10		3.19 (±0.79)		+5.6
10		3.31 (±0.59)						+3.8
10		3.13 (±0.71)						−1.9
15		4.9 (±1.1)		14		5.5 (±0.9)		−10.9
15		5.4 (±1.6)						−1.8
15		3.6 (±0.8)		14		3.9 (±0.9)		−7.7
15		3.6 (±0.9)						−7.7
—	72	66	−8.3					−8.3
116	$16.47	$7.06	−57.1	4,398	—	—	—	−57.1
14		6.20		10		6.36		−2.5
14		5.97						−6.1
12		5.78						−9.1
14		5.84						−8.2
13		5.29						−16.8
11		5.23		10		6.39		−18.2
8		5.33						−16.6
9		5.24						−18.0
10		5.24						−18.0
13		5.55						−13.2
150	$93.22	$41.62	−55.4	150	$36.25	$36.79	+1.5	−56.9
1155	6.25	5.75	−8.1					−8.1
148	7.85	6.74	−14.1	148	4.39	4.31	−1.8	−12.3
14		5.64		15		7.6		−25.8
15		7.2						−5.3
15		6.2						−18.4
23		30		23		42		−28.6
90		6.70		86		6.65		+0.8
19		2.11 (±0.74)		11		3.0 (±3.0)		−29.7
107		6.5 (±3.8)		132		8.4 (±7.5)		−22.6
17	7.47	2.71	−63.7	17	6.94	7.12	+2.6	−66.3
9		10.56 (±1.13)		9		12.78 (±2.05)		−17.4
9		12.22 (±2.17)						−4.4
9		12.78 (±4.66)						0.0
104	33.1	17.1	−48.3	48	14.33	31.69	+121.1	−169.4
104	1.75	0.95	−45.6	48	1.19	1.42	+19.3	−64.9
104	$899.56	$468.18	−48.0	48	$397.54	$904.44	+127.5	−175.5
119	6.7	11.6	+72.4					+72.4
91	5.2 (±5.0)	4.4 (±5.0)	−15.4	842	2.6 (±3.5)	2.4 (±3.5)	−7.7	−7.7
	0.23	0.15	−34.8		0.10	0.11	+10	−44.8
44	2.5	1.11	−55.5	38	1.5	0.88	−41.3	−14.2

TABLE 1 (continued)

	Patient Data					Outcome Measure	
	Age (years)[b]						
Study[a]	Range	Mean	Sex	Setting	Intervention	Outpatient	Inpatient
Olendzki (48)[g]	5–65	—	M/F	Fee-for-service health clinic	Short-term psychotherapy	Visits[h] Costs[h]	
Ortmeyer (49)[e]	16–65	—		Inpatient surgery	Instruction plus emotional support Emotional support		Days
Patterson et al. (50)[g]	All ages	33	M/F	HMO	Short-term psychotherapy	Doctor visits Lab visits X-ray visits	
Pickett (51)[e]	20–68	—	M/F	Inpatient surgery	2 types of instruction		Days
Plotnick et al. (52)[g]	15–69	43.2	M/F	3 HMOs	Alcohol counseling	Visits[h]	
Regier et al. (53)[g]	—	—	M/F	Four health care settings	Short-term psychotherapy	Visits[h]	
Risser et al. (54)[f]	40–75	56.8	M	VA inpatient surgery	Instruction		Days
Rosen et al. (55)[f]	—	20.0	M/F	Health science center	Short-term psychotherapy	Doctor visits Diagnostic visits Prescriptions	Days
Schmitt et al. (56)[e]	20–70	—	M	VA inpatient surgery	Group discussion		Days
Sherman et al. (57)[g]	25–77	47.4	M/F	HMO	Alcohol counseling	Cost/year per patient[h]	
							Cost/year per patient
Smith (58)[g]	16–23	—	M/F	College health service	Short-term psychotherapy	Visits[h]	
Surman et al. (59)[e]	—	50	M/F	Inpatient surgery	Emotional support		Days
Uris (60)[g]	—	—	M/F	HMO	Short-term psychotherapy	Visits[h]	
Van Steenhouse (61)[e]	29–65	—	M	Inpatient surgery	Emotional support Instruction		Days
Wilson (62)[e]	—	42	M/F	Inpatient surgery: Cholecystectomy	Instruction Relaxation training Both		Days
	—	43.1	F	Hysterectomy	Instruction Relaxation training Both		Days

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[a] Studies by the following authors were reviewed but not included in this analysis because insufficient data were available for computation or study design did [illegible] al. (67), Harrington (68), Haxam et al. (69), Healy (70), Hegyvary et al. (71), Hooper (72), Holder et al. (73), Johns et al. (74), Johnson et al. [illegible]

[b] We report mean ages and age ranges only when they are provided by the authors.

[c] Some studies report multiple control groups. We have reported the control group that best approximates usual and customary care.

[d] Plus sign favors control group.

[e] Experimental design with random assignment.

[f] Experimental design with nonrandom assignment.

[g] Time series study.

[h] Includes visits for X-rays and lab tests.

[i] Budman et al. called the dropouts a control group. However, since they received some mental health treatment, we [illegible]

[j] Includes visits for X-rays, lab tests, and mental health treatment.

[k] Excludes visits for X-rays and lab tests.

Psychotherapy Group				Control Group[c]				
	Mean (±SD)				Mean (±SD)			
N	Pre	Post	% Change	N	Pre	Post	% Change	% Difference[d]
401	3.0	3.5	+16.7	7,018	1.9	2.05	+7.9	+8.8
	126.5	109.5	−13.4		74.0	66.0	−10.8	−2.6
27		6.0		26		6.6		−9.1
26		5.8						−12.1
426	6.02	5.72	−5.0	—	—	—	—	−5.0
	1.86	1.59	−14.6		—	—	—	−14.6
	0.33	0.24	−29.4		—	—	—	−29.4
16		7.44		11		7.45		−.1
16		7.33						−1.6
367	1.01 (±0.67)	0.68 (±0.67)	−32.7	314	0.14 (±0.29)	0.20 (±0.29)	+42.9	−75.6
987		6.7		172		7.1		−5.6
541		6.1		379		8.7		−29.9
258		4.8		555		6.7		−28.4
957		4.9		491		6.2		−21.0
8		11.6		12		14.3		−18.9
103	5.69	3.37	−40.8	100	2.73	2.63	−3.7	−37.1
	2.82	2.11	−25.2		2.16	2.32	+7.4	−32.6
	3.86	2.22	−42.5		2.47	2.51	+1.6	−44.1
	2.13	1.16	−45.5		1.88	1.90	+1.1	−46.6
25		9.7		25		11.8		−17.8
64	293	263	−10.2	85	336	339	+0.9	−11.1
64	278	151	−45.7	85	209	493	+135.9	−181.6
49	1.41	1.52	+7.8	49	1.30	1.10	−15.4	+23.2
20		13.4		20		17		−21.2
45	4.18	3.71	−11.2	45	4.00	2.86	−28.5	+17.3
18		11.1		18		10.3		+7.8
[illegible]		11.6						+12.6
8		6.50 (±0.76)		8		7.38 (±1.41)		−11.9
8		6.63 (±0.92)						−10.2
[illegible]		6.27 (±1.27)						−15.0
[illegible]		7.22 (±1.20)		10		8.40 (±1.35)		−14.1
[illegible]		7.50 (±1.67)						−10.7
[illegible]		7.75 (±1.67)						−6.9

[illegible] cations or did not permit assessment of the impact of mental health services on medical utilization: Abbott (65), Diehr et al. (66), Godbole et [illegible] (79), Lindeman (80), Norfleet et al. (81), Patterson et al. (82), and Sclare et al. (83).

[illegible] Devine and Cook (5) performed a [illegible] their meta-analysis of cost-offset effects [illegible] health treatment among surgical patients [illegible] that the method of subject assignment [illegible] systematically related to the size of estimates [illegible] effect.

Outcome Indicators: Outpatient Versus Inpatient Medical Utilization

Of the 48 estimates of the effects of mental health treatment on outpatient medical utilization, only five came from experimental studies. Of the 71 estimates of the effect of mental health treatment on inpatient utilization, 62 came from experimental studies. The question is hopelessly confounded with study methodology and must be approached in a different way.

Five studies (20, 23, 46, 55, 57) provided data that permit an unconfounded examination of the effects of psychotherapy on inpatient as well as outpatient medical care utilization. In all but one, the reduction in inpatient medical utilization exceeded the reduction in outpatient utilization. The average change was −31.4% for inpatient utilization and −22.6% for outpatient utilization. Only one study (20) was an exception to this pattern. If one assumes that these five studies were drawn from a population of studies for which it is hypothesized that there is a .50 probability of inpatient utilization being reduced more than outpatient utilization, then the four "successes" (inpatient reduction greater than outpatient) in five "trials" have a probability less than .10 of being equaled or exceeded under the hypothesis.

These five studies have strengths and weaknesses that are complementary. On balance they permit the conclusion that the offset effect is likely to be greater for inpatient medical care utilization than for outpatient utilization. As we shall see, analysis of insurance claims will strengthen this impression.

Age of Patients as a Mediating Factor in Cost-Offset Effects

Most of the cost-offset studies did not report findings by age of patient; we found only two cost-offset studies of older people that were suitable for meta-analysis (29, 39). Neither of these dealt with outpatient psychotherapy, possibly reflecting a misleading bias that older patients do not profit from outpatient psychotherapy. There are, of course, many case reports and studies of positive benefits of mental health treatment for geriatric patients. For example, Godbole and Verinis (67) compared the effects of two forms of psychotherapy in a study of 61 hospitalized patients and reported benefits for both treatment groups as assessed by improvement in rating forms completed by nursing staff and author/therapists.

National statistics show the same trend as the research literature. In 1980 persons age 65 years and older constituted 11% of the population and accounted for 29% of all health expenditures (85). Yet they received a disproportionately small portion (2%–4%) of outpatient mental health services (86). These figures suggest underutilization of mental health services by this age group. Older people may be less likely than other age groups to be referred for mental health treatment, although their needs may be greater and benefits would seem to be significant.

Levitan and Kornfeld (39) provided psychiatric consultation to 24 elderly patients hospitalized for fractured femur and compared their hospital stays with those of a comparison group of 26 patients hospitalized for the same reason without psychiatric intervention in the same months of the previous year in the same hospital. Length of stay for the intervention group was 12 days shorter than the mean of 42 days for the control group, and twice as many of the patients who had been provided consultation returned home rather than being discharged to a nursing home or other institution.

Hill (29) studied 40 cataract surgery patients between the ages of 50 and 91 years. They were randomly assigned to a behavioral training group, a sensory information training group, a combined behavioral and sensory training group, or a comparison group that received no special preparation. We would not expect important differences in length of stay, since th mean hospital stay for all four groups of patients wa only a little over 3 days. However, a second outcome variable—first venture from home after discharge—did show significant differences in the expected direction. The "combined" group ventured out soonest from home, and both other treatment groups ventured out sooner than the comparison group.

Since we could find only two studies that directly addressed the impact of age on the offset effect, we measured its impact indirectly through meta-analysis of the 23 studies that did report the mean age of subjects. In 15 inpatient studies the mean age of the patients was 48.14 years, and the correlation between the mean age listed in each study and the effect size was −.44, indicating that older subjects benefit more. In four outpatient studies that used visits to the doctor as the outcome measure, the mean age of the patients was 30.53 years, and the correlation between mean age and effect size was −.31. In four alcohol outpatient studies the mean age of the clients was 35.8 years, and the correlation between mean age and effect size was −.78. Thus in three different settings with three different populations a consistent finding emerges: Older people tend to have greater offset effects following mental health treatment.

METHOD 2: ANALYSIS OF HEALTH INSURANCE CLAIMS FILES

The claims files of the Blue Cross and Blue Shield FEP from 1974 through 1978 contain the medical care charges for a national sample of 6.7 million federal

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employees, retirees, survivors, and family members. About 53% of all federal employees were insured by FEP during these years, providing the largest fee-for-service data base available. The procedures for transforming the claims files to research files are described elsewhere (87). About 1.5% of persons covered received some form of mental health services in any 1 year during the 5-year period, or about 3.9% during the 5 years. This proportion is consistent with other reports that 1% to 1.8% of general medical patients receive psychiatric treatment in a 1-year period (88, 89).

Previous work (87) has shown a dose-response relationship for psychotherapy and medical care utilization, with a cost-offset effect becoming clear after about six psychotherapy visits. In the present study, therefore, we examined the medical utilization of a group of persons who had at least seven outpatient mental health treatment visits beginning in 1975 but no psychiatric inpatient claims at any time. We compared their medical care utilization with that of a randomly selected subset of persons who filed no mental health claims throughout the 5 years of the data base. Each person in both groups was drawn from a contract that was active from 1974 through 1978 and was required to have at least one medical claim of any size in 1975 to enter the study. The data thus represent persons who made at least minimal use of medical care services. About 19% of contracts filed no claims during the 5 years. To ensure that differences in death rates would not bias the results, each person over age 55 had to have at least one claim of any kind in 1978, the last year of the data base.

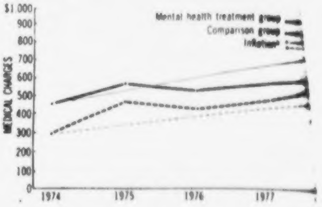
This method of comparison avoids capitalizing on statistical regression to the mean, since both groups were compared on calendar time and had the same requirement to enter the study, a medical claim in 1975. We were thus able to compare the medical care utilization of the two groups for 1 year before the year of the entry requirement and for 3 years following it, which is also the year in which each person in the treatment group began a first episode of outpatient psychotherapy with or without drugs.

RESULTS 2

Evidence of General Cost-Offset Effects

Figure 1 shows that in 1974, the year before the start of mental health treatment, the medical charges for the treatment group were markedly higher than those for the comparison group, a finding consistent with the literature that suggests excess morbidity from physical disease among the mentally ill (90, 91) and our earlier findings (87). The medical charges of both groups rose in 1975 in part as an artifact of selection—each person was required to have at least one medical claim in that year. The medical care charges of both groups then fell in 1976 and rose again at a slower rate from 1976 to 1978. Following mental health treatment, the me care charges of the treatment group increased slowly than the average inflation rate of 13.6% year. In contrast, the charges of the comparison g increased faster than the inflation rate. If we adju means for 1975–1978 for the difference betw groups in 1974, the adjusted means of the tre group were significantly lower than those of the parison group during each of these 4 years (t=– –2.44, –2.69, and –3.77, respectively, p<.05).

FIGURE 1. Total Medical Charges of Persons With Outpatient Mental Health Treatment Visits From 1 1978 But No Inpatient Psychiatric Claims (N=6, Random Sample of Persons With No Mental Claims (N=32,450)[a]



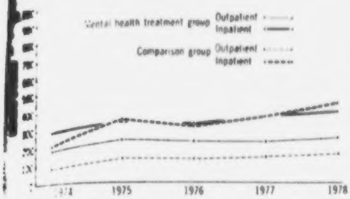
[a] All persons were required to have at least one medical claim in those over age 55 at least one claim in 1978
[b] The inflation rate was 13.6%/year

The treatment group was younger than the co son group (33.6 years versus 39.4 years) and cont more females (59.6% versus 53.2%). Since medical services increases with age, is higher females, and varies geographically, it is possible differences in utilization favoring the mental h group could be explained by these variables. Ther we adjusted the means of the mental health treat and comparison groups for age, sex, and re differences by the method of unweighted means an sis (92). Removing the "nuisance variables" in way did not alter the general form of the findings. adjusted means were different, but the pattern differences was not affected. Therefore the follow analyses will be based on actual means whose me ings are perhaps intuitively easier to grasp.

Cost-Offset Effects in Claims Files: Outpatient Versus Inpatient Medical Utilization

Figure 2 compares the outpatient and inpati medical care charges of the persons whose total medical charges were graphed in figure 1. Outpat charges include physician office visits, outpatient laboratory charges, and prescription drugs. Inpati charges include all medical charges incurred while patient was hospitalized, e.g., hospital bed, physici

2. Inpatient and Outpatient Medical Charges for Persons at Least Seven Outpatient Mental Health Treatment Visits 1975 Through 1978 But No Inpatient Psychiatric Claims 6,629) and a Random Sample of Persons With No Mental Treatment Claims (N = 32,450)[a]



footnote a in figure 1.

fees, and other charges billed separately during the hospitalization.

It is clear that in every year the mental health group spent more in outpatient charges than the comparison group. The curves are nearly parallel. After adjustment of the means for 1975 through 1978 for differences between the two groups in 1974, the only significant difference between them occurred in 1975 and favored the comparison group. The mean inpatient medical care charges of the mental health group were also higher than those of the comparison group in 1974. But in 1978 they were lower, and in the intervening years they were nearly indistinguishable. After adjustment of the means for differences in 1974, the mental health group had significantly lower inpatient medical care charges in every subsequent year. The cost-offset effect that we saw in adjusted total medical charges was primarily the result of a lowering of inpatient medical charges for the mental health group.

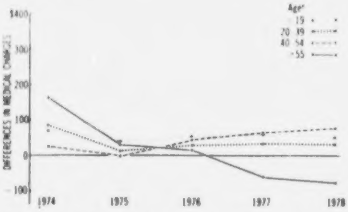
Cost-Offset Effects in Claims Files as Mediated by Patients' Age

An examination of the cost-offset effect for narrow age subsets is complicated by the necessarily small sizes of these groups and the high variances characteristic of medical claims data. Since most persons obtain medical care only occasionally, claims data consist mostly of zero entries. Claims generally range from a few dollars to several hundred dollars, with a few much larger entries. In small groups, a single person with extraordinarily high medical claims can increase the variance considerably and complicate the interpretation of differences among group means. We can avoid this problem by removing the extreme cases, defined as persons with total medical charges over $20,000 in a single year, from both the mental health and comparison groups.

Removing the extreme cases from both groups lowered the mean of each group by only a few dollars and reduced the size of both groups by only 0.4%. Thus variance and standard errors were minimized without altering the general form of the findings.

To emphasize the relative differences in medical care utilization of age subsets, figure 3 displays differences between the mean inpatient medical charges of the treatment group and the comparison group for four age groups. Figure 4 presents the same differences for outpatient medical utilization. Negative differences (below the zero line) indicate that the treatment group had lower charges than the comparison group. A

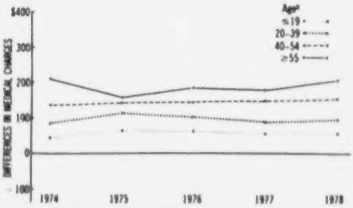
FIGURE 3. Differences in Mean Inpatient Charges for Four Age Groups of Persons With at Least Seven Mental Health Treatment Visits From 1974 Through 1978 But No Inpatient Psychiatric Claims and a Random Sample of Persons With No Mental Health Treatment Claims[a]



[a]See footnote a in figure 1. Persons with total medical charges exceeding $20,000 in any one year were excluded.

[b]The sample sizes for the mental health treatment and comparison groups were as follows: 19 years or younger, 1,746 and 8,183, respectively; 20–39 years, 2,387 and 7,521; 40–54 years, 1,871 and 10,363; and 55 or older, 595 and 6,252.

FIGURE 4. Differences in Mean Outpatient Medical Charges for Four Age Groups of Persons With at Least Seven Mental Health Treatment Visits From 1974 Through 1978 But No Inpatient Psychiatric Claims and a Random Sample of Persons With No Mental Health Treatment Claims[a]



[a]See footnote a in figure 1. Persons with total medical charges exceeding $20,000 in any one year were excluded.

[b]See footnote b in figure 3.

falling curve, whether above or below the zero difference line, indicates a cost-offset effect. Graphing differences in this way removes the inflation component, since it affects both groups equally.

A comparison of figures 3 and 4 shows that the cost-offset effects seen for total medical charges resulted largely from lowered inpatient medical charges. Further, the oldest age group among the mental health treatment persons, those over 55, clearly showed the most dramatic decrease in hospital charges; in 1974 they had average inpatient medical charges more than $160 higher than those of the comparison group. In 1978 they were spending $70 less. This finding cannot be explained by selective dropout, since all persons in the oldest age groups were required to have at least one claim in 1978.

Figure 4 shows that the differences in outpatient medical charges of all the age groups remained fairly constant over the 5 years and that the expenditures of the mental health group were higher in every year than those of the comparison group. The slight dips in the curve of the oldest age group reflect the fact that those over age 55 in the mental health treatment group had significantly lower outpatient charges in 1975 and 1977 ($t=-4.31$ and -1.99, respectively, $p<.05$).

These findings for fee-for-service health insurance subscribers are generally in accord with findings derived from our meta-analyses of studies done in organized medical care settings and hospitals using both experimental and time-series methods.

DISCUSSION

Retrospective analysis of health insurance claims data and meta-analyses of time-series studies and prospective controlled experimental studies converge to provide evidence of a general cost-offset effect following outpatient psychotherapy. The widespread and persistent evidence of reduced rate of increase of medical expense following mental health treatment argues for the inseparability of mind and body in health care, and it also argues specifically for the likelihood that mental health treatment may improve patients' ability to stay healthy enough to avoid hospital admission for physical illness.

The clearest cost-offset effect appears largely in the reduction of inpatient rather than outpatient costs. As we noted in an earlier study (87), inpatient charges account for 75% of total medical charges and substantial savings would have to result from reduced hospitalization. Older patients show larger cost-offset effects than younger ones. These findings could be surprising to anyone believing that mental health treatment is necessarily more effective for younger than older people. The findings could also be surprising if one had assumed that reduction of medical services associated with psychotherapy is a function of keeping "the worried well" from "cluttering outpatient services." We have presented more detailed evidence elsewhere to show that recipients of mental health services suffer more chronic disease and are physically sicker than people who do not use psychiatric services (3, 87, 93). The effects of outpatient mental health treatment cannot be explained as simple substitution of one outpatient service for another.

Older people generally use more medical services and more expensive inpatient services, leaving more room for cost reductions. But other factors may also contribute. Many older people have special mental health needs following emotionally distressing events such as suffering physical disease; experiencing loss of friends, spouse, social status, or income; being victims of crime; or being forced to relocate. The 1975 Harris survey showed that 8% of the respondents 65 and older said they had no close person to talk to, compared with 5% of the respondents under 65 (94). Older men and women often have multiple social problems and more than one chronic disease or disability. Yet on average they are seen for a shorter period of time by their doctors during outpatient visits (95). Older people may also be in jeopardy because their lives lack the structure of a daily work routine and the supportive social networks associated with employment. The older patient—even if voluble about physical symptoms or peeves—may not volunteer much about emotional distress to a much younger physician, who also may not inquire about such problems when examining an elderly patient. Such a situation is not promising for early detection of need for mental health intervention, nor is it optimal for active cooperation between patient and physician in the effective management of chronic illness that would minimize need for hospitalization.

In view of the needs of the older population, planned psychological intervention may have special advantages. Provision of mental health services to older people could serve to shore up flagging determination to follow medical advice and to stay healthy and socially engaged. Evidence from one study of patient education and support for hypertensive patients reported that the special program had a more positive influence on compliance among elderly than among young patients (96).

In view of the evidence from the literature and from our studies of health insurance claims, underutilization of mental health services by the elderly may result in needless suffering among the elderly and needless cost to society.

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STATEMENT OF DR. CAROLEE DeVITO, Ph.D., M.P.H., DIRECTOR OF PLANNING AND EVALUATION, SOUTH SHORE HOSPITAL, MIAMI BEACH, FL

Dr. DeVito. Thank you, Senator. I appreciate the opportunity to provide an overview of our recent efforts related to risk reduction and prevention among the elderly. I am an associate professor and vice chairperson of Family Medicine and Community Health at the University of Miami and work with the South Shore Hospital and Medical Center as their Director of Planning and Evaluation.

The major topic I would like to discuss this morning can be described as the technology of geriatric assessment and planning. This includes developing appropriate linkages among providers to enhance the match between services that are needed and services that are actually delivered to the elderly. The ultimate goal centers on maximizing patients' ability to live independently and minimizing risks, such as unnecessary or premature institutionalization, disease progression, and pain or suffering.

Before proceeding with this discussion, I would like to raise briefly an additional topic which has been the focus of our efforts. Currently under way is a 5-year epidemiological study of falls among the elderly in our community. It is funded under a cooperative agreement from the Centers for Disease Control.

Injuries among the elderly are a major public health concern—Dr. Eisdorfer has already alluded to them—in terms of death, in terms of disability, and also in terms of medical costs. Persons 65 years of age and over constitute about 11 percent of the population, but they account for 45 percent of the unintentional home injury deaths.

In the United States, there are over three and a half million injuries per year that occur to persons 65 years of age or older in their home. In our area alone, in the 3 years that we have had a surveillance system set up, there have been over 4,500 falls brought to our attention.

We need national support, and we need local implementation strategies to attack this problem, both in the academic think tanks to identify the risk factors and in the community settings that institute some of the programs that we already know could be effective.

At this time, I would like to return to the discussion of our hospital initiatives in long-term care program. These 24, Robert Wood Johnson Foundation-supported programs vary considerably across the country. However, they have all been developed with the recognition that no other community institution serves more older people than the community general hospital.

With the collaboration of South Shore Hospital and Medical Center, we have directed attention to the constituency of older persons in the unique catchment area of South Miami Beach. The risk reduction problems and delivery of care are the same in South Miami Beach as in most other communities, but here—due to sheer numbers, economic deprivation, and the geographic isolation of that community—the problems really exist in a blatant form.

Using the same term that Senator Graham mentioned, we dubbed this a natural geriatric laboratory for the study and implemention of innovative programs. Selected estimates from last year provide a little bit of a profile of that target population, too. About 40 percent of those people are hospitalized more than once a year; they are very frail.

They are very functionally dependent; they are in need of great numbers of services at discharge. For example, almost 60 percent need help bathing; over 30 percent need help dressing; 16 percent need help using the toilet; over 11 percent need help eating; and over half need help with things like shopping, doing laundry, and housecleaning and so on. They are very isolated, and they are in great need of community based services.

The geriatric assessment and planning program has responded to those needs with about 5,000 recommendations annually in 14 different service categories. The program's successes are highlighted by the large numbers of individuals for whom well-defined needs are linked specifically to community based service delivery, promoting the highest possible level of independence and functional ability. Its frustrations result from the inability to facilitate linkage to service for significant numbers of patients with well-defined and well-measured needs.

The constraints generally are a result of inability to pay and the limited access to subsidized programs. This results in obvious compromises to the quality of life and a real and cruel substitution of preventable hospital stays for in-home care. Though we fully recognize the uniqueness of the South Beach setting, the kinds of problems that we face in meeting the needs of our frail elderly have been echoed around the country.

These types of programs have demonstrated that the acute care settings do provide previously underutilized opportunities to enhance care to high-risk elderly through a number of strategies and that important benefits accrue from things like standardized and systematic comprehensive assessment, the application of interdisciplinary team care, effective linkages among multiple providers and levels of care, as well as continual monitoring systems.

Despite their feasibility and their irrefutable benefits, these strategies really have not been mainstreamed into the care of older persons. Furthermore, there are blatant, unmet needs persisting for service delivery, such as in-home personal care and supportive housing. It is clear that unique programs of service delivery for tens or even hundreds of patients, such as the social HMO's or even the hospital initiatives demonstrations, may be important isolated success stories, but they will prove to be trivial.

Deliberate efforts to restructure entitlement and control over services for the typical needs of all of our elderly provide the only hope for significant risk reduction.

I certainly recognize the role of new knowledge and new technology, but our failure to recognize opportunities for risk reduction and prevention for the elderly represents an application of technology at its worst. Furthermore, the most painful gaps exist between what we currently are quite capable of doing and what we routinely deliver.

We need reimbursement for assessment and care coordination, commonly called case management, as well as a known appropriate range of community-based medical, social, and supportive services to prevent unnecessary compromises to independent living, unnecessary or premature institutionalization, and repeat hospitalization. Thank you.

Senator MITCHELL. Thank you very much. That has been very helpful.

[Applause.]

Senator MITCHELL. Ms. Carbonell, welcome.

[The prepared statement of Dr. DeVito follows:]

Testimony

BY

Carolee A. DeVito, PhD, MPH
Associate Professor and
Vice Chairperson
Department of Family Medicine and
Community Health
University of Miami School of Medicine

Senator Graham, Senator Mitchell and members of the Senate Finance Committee, my name is Carolee A. DeVito. I am an associate professor and vice-chairperson for the Department of Family Medicine and Community Health of the University of Miami School of Medicine. My background and training include public health as well as the organization and delivery of health services.

I greatly appreciate the opportunity to provide an overview of our recent efforts related to risk reduction and prevention among the elderly. For the past several years, the University of Miami School of Medicine has focused its health systems development capabilities on the care of older persons. In fact, under the leadership of the Department of Family Medicine and Community Health, high risk elderly populations were identified and community-oriented health care strategies were developed to better meet their needs.

Our efforts attracted funds from the local private sector as well as local and national foundations including a W.K. Kellogg Foundation grant to develop assessment technology for long-term care needs in acute care hospitals. Additionally, the University of Miami's community hospital project, the Geriatric Assessment and Planning (GAP) Program, enjoyed four years of support as one of 24 sites in the nation and the only Florida site in The Robert Wood Johnson Foundation's Program for Hospital Initiatives in Long-Term Care (HILTC).

The major topic I would like to discuss this morning can be described as the technology of geriatric assessment and planning. This includes developing appropriate linkages among providers to enhance the match between services needed and services actually delivered to the elderly. The ultimate goal centers on maximizing patients' ability to live independently and minimizing risks such as unnecessary or premature institutionalization, disease progression and pain or suffering.

Before proceeding with this discussion, I would like to raise briefly an additional topic which has been the focus of our efforts. Currently under way is a five year epidemiological study of falls among the elderly in our community, funded under a cooperative agreement with the Dade County Public Health Unit and the federal Centers for Disease Control in Atlanta. The study resulted from a recognition of the individual and societal burden of preventable injuries among the elderly.

Injuries among the elderly are a major public health concern in terms of death, disability, and medical costs. Persons 65 years of age and over constitute about 11% of the U.S. population, but they account for about 45% of all unintentional home injury deaths (National Safety Council, 1982). In the United States (1981) over 3.5 million injuries, 14.2 injuries per 100 persons per year, occur to persons 65 years of age and over as a result of home injuries (National Center for Health Statistics, 1983). Persons 65 years of age and over also have the largest number (over 76 million) and the highest rate (308.3 per 100 persons per year) of days restricted activity as a result of home injuries than at any other age group, and the largest number (over 22 million) and the highest rate (91.2 per 100 persons per year) of days of bed disabiltiy as a result of home injuries than any other age group. For persons 65 years of age and older, falls and fire and burns are the most common causes of unintentional injury death in the home. On South Miami Beach alone, over 4,524 falls have brought the elderly to hospitals and their emergency rooms since our surveillance began less than three years ago.

These problems are more poignant for the very old. The death rate from all unintentional injuries for those 75 years of age and over is more than 2 1/2 times that of teenagers and young adults, the next most vulnerable group. (National Safety Council, 1982). Persons 75 years of age and over have the highest injury death rates for many causes including falls and fires and burns (Baker, 1984).

Despite its obvious importance, little attention has been given to the identification of factors which can be changed to reduce injuries among the elderly. National support and local implementation strategies are needed to attack this problem in both academic think-tanks and community settings. Collaboration is needed to heighten awareness, to provide education and outreach, to implement changes in contributing personal, medical and environmental factors, to monitor the effectiveness of specific interventions and to disseminate the lessons learned.

As I explained, this is not the main topic about which I was asked to comment. However, it is of importance and relevance to your deliberations. Other members of our research team and I would be most pleased to provide you with additional information at your request.

At this time, I would like to return to a discussion of our Hospital Initiatives in Long Term Care program. The HILTC projects vary considerably across the county. However, all have developed with the recognition that no other community institution serves more older people than the community general hospital (S.J. Brody and N.A. Persily, Hospital and the Aged, 1984). The Miami effort, the Geriatric Assessment and Planning (GAP) Program, developed techniques to redefine and reshape the care of older persons by recognizing the unique opportunity to bring standardized and systematic multidisciplinary assessment and planning technology for long-term care literally to the bedside of acute care inpatients. Rather than competing or repeating services which may be available, the GAP Program core provides formal strategies to train community-based physicians and hospital staff in techniques of multidisciplinary assessment and interdisciplinary planning, integrate hospital teams into community provider networks, link the community hospital role with the broad array of community-based providers, and to track the match between needs and services delivered among multiple providers.

Our work on the Gap Program began in 1980. In collaboration with South Shore Hospital and Medical Center, we directed attention to the constituency of frail older persons in the unique catchment area of South Miami Beach, Florida.

South Shore Hospital and Medical Center, is a not-for-profit, community hospital affiliated with the University of Miami School of Medicine. It is the only hospital and primary health care center for the 3.03 square mile southernmost tip of the City of Miami Beach island (South Beach) and it is located about five miles from the University Medical Center campus. Although the demographics of South Beach have changed over the past decade, particulary in response to large influxes of immigrant/"entrants", health and human services delivery to the elderly remains a dominant responsibilty to providers in this area.

The South Beach population can be characterized as an ethnically diverse, poor elderly community in an urban, though geographically isolated catchment area. The 1980 census portrayed this is a densely populated urban area with approximately 46,000 permanent residents, 60% of whom were over age 65. Currently, South Beach has one of the highest concentrations (perhaps the highest) of older persons aged 75+ and ages 85+, of any community representing 28% and 7%, respectively, of its total population, or 60% and 12% of its elderly population. About one-quarter of all South Beach elderly are estimated to be below the proverty level and over half live alone. The challenges of risk reduction and delivery of care are the same as in most other communities but here, due to sheer numbers, economic deprivation and geographic isolation, problems exist in a blatant form creating a "natural geriatric laboratory" for the development and testing of innovative programs.

The development of the Geriatric Assessment and Planning (GAP) Program and its various modules has followed a paradigm of Community Oriented Health Care, founded upon therapeutic objectives of maximizing patient functional health status and patient autonomy, while, in theory, driven by an assessment of needs and evaluated by impact on the health outcomes of a defined community. Given the reflection of South Beach demographics upon the hospital's acute care services--median patient age of 81 years and 76% geriatric (1986 data)* -- the GAP Program initially targeted elderly hospital inpatients.

Summarized below are selected estimates from last year to provide a profile of the target population:

- Frail
  - About 40% are hospitalized more than once a year.
  - The median number of diagnoses per patient admitted is four.
  - Over 10% have specific psychoses while nearly half are categorized as confused or disoriented.
- Functionally Dependent
  - Approximately 25% hearing impaired, 75% vision impaired.

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*The University of Miami Comprehensive Pain and Rehabilitation Center moved to South Shore Hospital and Medical Center in November of 1985, significally changing the inpatient mix, which until that time was over 90% geriatric.

- Activities of Daily Living - Katz score* at discharge - 26% "A", 8% "B", 20% "C", 6% "D", 13% "E", 8% "F", 20% "G".
- In need of Human Help at Discharge -

  17% need help to obtain/take medication, 59% need help bathing, 34% need help dressing, 16% need help using the toilet, 13% need help transferring, 11% need help eating, 12% need help walking, 50% need help preparing meals, 52% need help shopping, 50% need help doing laundry, 52% need help housecleaning, 25% need help with transportation.

- Isolated
  - Less than 50% of needs identified have formal or informal resources inplace prior to program enrollment
  - About one third live alone
- In Great Need of Community-Based Services
  - Approximately 53% of patients are discharged to home with an additional 14% discharged to ACLF's**
  - Community-based services are recommended for over 60% of patients at discharge.

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*for bathing, dressing, transferring, toileting, eating/feeding, bowel and bladder continence - A= Performance Without Assistance in any of the functions; B through G, Needs Assistance with one, two, three, four, five, six functions, repectively.

**Adult Congregate Living Facility

The GAP Program has responded to those needs with about 5,000 recommendations annually in 14 different service categories (including skilled nursing, physical therapy, occupational therapy, speech therapy, attendant/supervision, personal care, meals, shopping, laundry, housecleaning, transportation, adaptations to living space, patient/family education/training, equipment/ supplies and others).

The program's successes are highlighted by the large numbers of individuals for whom well-defined needs are linked specifically to community-based service delivery, promoting the highest possible level of independence and functional ability. Its frustrations result from the inability to facilitate linkage to service for significant numbers of patients with well-defined needs. The constraints generally are a result of inability to pay and limited access to subsidized programs. For example, we have documented waiting lists of up to nine months for "Community Care for the Elderly" personal care and homemaker services with examples of excess need for rehospitalization while patients await community-based services. This results in obvious compromises to quality of life, and a cruel substitution of likely preventable hospital stays for in-home care.

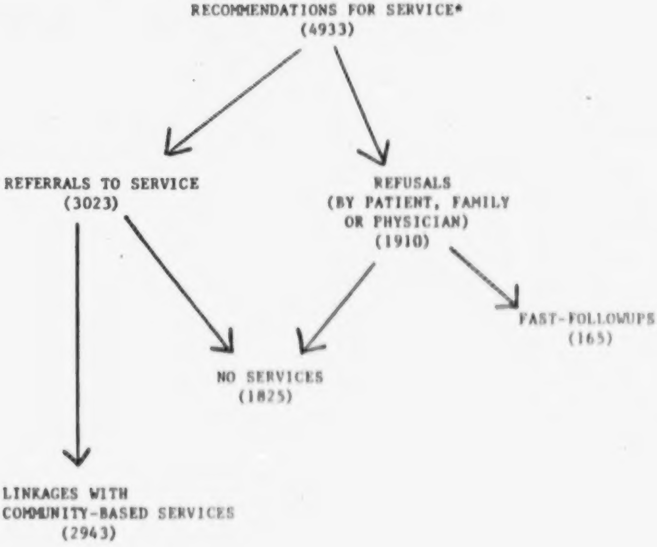
Though we fully recognize the uniqueness of the South Beach setting, the kinds of problems faced in meeting the needs of our frail elderly have been echoed by the Hospital Initiatives in Long-Term Care Program sites across the country. These types of programs have demonstrated that acute care settings provide previously underutilized opportunities to enhance care to high risk elderly through a number of strategies, and that important benefits acrue from, standarized systematic and comprehensive assessment, the application of interdisciplinary team care, effective linkages among multiple providers and levels of care as well as continual monitoring systems. Despite their feasibility and indisputable benefits, with the exception of demonstration programs and unique waiver-dependent situations, these strategies have not been mainstreamed into the care of older persons. Furthermore, blatant unmet needs persist for service delivery such as in-home personal care and supportive housing.

It is clear that unique programs of service delivery for tens or even hundreds of patients, such as the Social HMOs or even the HILTC demonstrations, may be important isolated success stories, but they will prove trivial. Deliberate efforts to restructure entitlement and control over services for the typical needs of all our elderly provides the only hope for significant risk reduction.

Though I certainly recognize the role of new knowledge and technology, our failure to recognize opportunities for risk reduction and prevention for the elderly represents an application of technology at its worst. Furthermore, the most painful "gap" exists between what we currently are quite capable of doing, and what we routinely deliver. We need reimbursement for assessment and care coordination (case management), as well as the well known appropiate range of community-based medical, social and supportive services, to prevent unnecessary compromises to independent living, unnecessary or premature institutionalization and repeat hospitalization.

As you might imagine, we have compiled a significant amount of detailed information to describe our program efforts and the thousands of patients we have served and monitored. We would be happy to share these at any time.

PICTORIAL REPRESENTATION NUMBER OF RECOMMENDATIONS FOR COMMUNITY-BASED SERVICES, NUMBER OF REFERRALS TO COMMUNITY-BASED SERVICES AND NUMBER OF LINKAGES TO COMMUNITY-BASED SERVICES, GAP PROGRAM 1986


RECOMMENDATIONS FOR SERVICE*
(4933)
REFERRALS TO SERVICE
(3023)
REFUSALS
(BY PATIENT, FAMILY OR PHYSICIAN)
(1910)
FAST-FOLLOWUPS
(165)
NO SERVICES
(1825)
LINKAGES WITH COMMUNITY-BASED SERVICES
(2943)

*IN 14 DIFFERENT SERVICE CATEGORIES: SKILLED NURSING, PHYSICAL THERAPY, OCCUPATIONAL THERAPY, SPEECH THERAPY, ATTENDANT/SUPERVISION, PERSONAL CARE, MEALS, SHOPPING, LAUNDRY/HOUSECLEANING, TRANSPORTATION, ADAPTATION TO LIVING SPACE, PATIENT/FAMILY EDUCATION/TRAINING, EQUIPMENT/SUPPLIES, OTHERS.

PICTORIAL REPRESENTATION
NUMBER OF ASSESSMENTS
BY TYPE OF ASSESSMENT
GAP PROGRAM
1986

ENTRY

ADMISSIONS TO SOUTH SHORE HOSPITAL
AND MEDICAL CENTER WHO ARE 65+ YEARS
2452

ASSESSMENT

2452 ASSESSMENTS AT-ADMISSION
TO HOSPITAL
(100% OF PATIENTS 65+ YEARS)

556 DISCHARGE PLANS FOR
PATIENTS RETURNING TO
NURSING HOMES
(23% OF PATIENTS 65+ YEARS)

1890 ASSESSMENTS DURING
HOSPITAL STAY
(77% OF PATIENTS 65+ YEARS)

INITIAL PLAN

*2465 ASSESSMENTS AND SERVICE
RECOMMENDATIONS AT DISCHARGE
(100% OF PATIENTS 65+ YEARS)

*THERE ARE NUMEROUS READMISSIONS WITHIN THE YEAR, THUS THE WORKLOAD 2465 DISCHARGE PLANS REFER TO 1652 TOTAL PATIENTS.

STATEMENT OF JOSEFINA CARBONELL, DIRECTOR, LITTLE HAVANA ACTIVITIES AND NUTRITION CENTER, MIAMI, FL

Ms. CARBONELL. Thank you. Thank you, Senator, for giving me the opportunity to present my testimony on our experience on what we do at the front line and at the provider level in senior center activities and nutrition programs. I am the Director of the Little Havana Activities and Nutrition Centers, and we operate 12 centers throughout Dade County; and we provide services to over 21,000 unduplicated clients a year.

To use policy makers terms like health promotion and risk reduction have great meaning; to the people whom we serve, they are just words. Let me tell you what does have meaning, though, at our level.

At 4 o'clock in the morning, people start to line up at our centers to make sure that they get one of the tickets that assures them a meal that day. Four o'clock in the morning I said. They don't do that just for the meal, but the reality is that their lives revolve around the day at the center.

If they are too late to get a meal ticket, if they are too late to break bread with their friends, then they feel that there is no place for them that day.

Lectures on exercise and nutrition and health promotion, even if given in Spanish, are not likely to change habits of a lifetime. Many of our people suffer at an early age from heart disease, diabetes, and cancer. So, we have to take a different approach.

We mix green beans—a salad, they don't like—with a little beef in some stew and spices, and we call that—"carne con papas."

We don't have something called aerobic dancing, and certainly, the Jane Fonda tapes don't sell in our community very well. But we do put on some Latin music around 11 o'clock in the morning and dance and exercise and stretch out. Almost everyone participates, except the incurable domino players; but more important, there is regular, ongoing health screening for diabetes, cholesterol levels, blood pressure, and glaucoma that picks up danger signs at an early stage and enables us to intervene with one-on-one counseling and referral. What I am saying is that we do it our way, and it works—with food, with exercise, with screening, with education.

Health prevention is really a byproduct of the way we create a sense of family and community and companionship in our community. The meal we serve is, for many of our clients, the only hot meal they receive in a day. Sometimes you see them leave at the end of the day with a piece of fruit and a little container of milk, and that is probably what they will have for their evening meal.

The food tastes like it is Cuban food or Latin food, but it is carefully selected and balanced to meet most of the nutritional needs of our clients.

Just as important as the nutritional content of the food is the fact that people eat it in a social setting. For many, it is the only time that they are not eating alone. We are not a social club, but we are more.

We are their eating club, but we are more. We are in a real sense their family and they are ours. This is a country where people live as strangers, where the extended family that dominates the Cuban and Latin traditions is disintegrating, where the elderly are not honored or valued except at election time. Those are realities, but they are not unchangeable realities; we can alter them and we are altering them, and I want to tell you how we are doing that.

You can sum up almost everything we do in health promotion and risk reduction in two words: participation and contribution. Let me talk about participation.

Participation is health promotion in a fundamental sense and participation is risk reduction. We cannot preach health promotion and expect behavioral changes, but we create a peer culture where health promoting activities are taken as the norm, when it is socially acceptable to have your blood pressure taken or your sugar level checked.

The mind and the body interact. Social interaction and mental stimulation are not reimbursable under Medicare as a treatment modality, but we are not willing to wait until social isolation becomes so acute that it requires medical intervention, hospitalization, or institutionalization.

I can show you specific cases where a health screening program caught problems and prevented serious medical complications, problems that were not caught and would not have been caught by the HMO's and the PBPO's in which our clients are enrolled.

Isolation also kills; but before it does, it runs up bills. If health was only a matter of chemistry, you would hook us all up to IVs; but health is a matter of the spirit, of the will to live. If I didn't know it before last year, I learned it the hard way when the Gramm-Rudman cuts took effect. We had to cut transportation services, which meant that we had to shift some of our people to other centers as a matter of cost-effective administration.

I watched two of those whom we transferred to other centers go into deep depression. I saw them mourn the loss of their friends, the loss of everything familiar and precious that they had been accustomed to for 10 to 12 years.

I saw the people at these other centers console them and comfort them. I saw them get identical meals and identical nutrition and services at their new centers. They lasted a few months, one 3 and another 2.

There is more to health than nutrition. Eating is a social activity, and human beings are social animals. That is why our day starts with a lot of social activity and participation; and even the gossip is as important as the food. The food makes it possible, but it is the totality of the program—the participation—that promotes health.

It is difficult to convey the fierce attachment people have to the centers like ours, until you confront the grim reality. For many, the day ends when they leave the center.

Another element of our health promotion is contribution. I think there is a basic need to feel valued and to feel needed. I think that when people give to others, they feel their own lives to be important to others. I think it is a key to not only health promotion but also to justifying expansion of programs.

We feed thousands of people each day with a staff of only 36 employees. Most of the work for the rest of the services is done by our clients themselves.

Many programs for senior citizens involve them as volunteers, but none I think so extensively as Little Havana. That contribution is a form of health promotion. Life is more than taking. I have seen people make themselves get well, force their bodies to get well, because they felt they were needed by others.

I think that the element of contribution is not only central to health promotion; it is also central from a budgetary point of view. It is a key to justifying expansion of programs and expansion is critical because the needs are increasing astronomically.

That is why this program has to be about more than simply eating and health prevention. It has to be about participation. I think it has become a vehicle by which the elderly can help enlarge the pie, help expand the total sum of services available to all.

Let's be candid. Concern over costs and limited dollars lie behind much of the concern over prevention, but in an era when everyone is concerned about cost containment and budget cuts, generalized talk about prevention and risk reduction is not enough. We need to do more, to demonstrate more, and to prove more.

I would be reluctant to stake the survival of this program on a claim that we have prevented *x* number of hospitalizations by keeping people happy or by ensuring health promotion and nutritional consultation. I think it is true. I think we have prevented, but I am sure some economist would respond that it would be even cheaper and more cost effective if the elderly just didn't live so long, once they have stopped adding to the GNP.

I think that adequate funding for the programs we run has to rest not only on risk reduction and health promotion, but it has to rest on contribution. Thank you.

[Applause.]

[The prepared statement of Ms. Carbonell follows:]

TESTIMONY OF
JOSEFINA CARBONELL
PRESIDENT
LITTLE HAVANA ACTIVITIES AND NUTRITION CENTERS
OF DADE COUNTY, INC.

Good morning, distinguished Senators, Co-Panel Members and guests. It is an honor to be invited to testify today on the subject of health promotion and risk reduction for the elderly. My name is Josefina Carbonell. I am the director of the Little Havana Activities and Nutrition Centers of Dade County. We operate twelve centers throughout Dade County; we provide services to over 21,000 elderly individuals each year.

To you, as policy makers, terms like "health promotion and "risk reduction" have great meaning. To the people whom we serve, they are just words.

Let me tell you what does have meaning though.

° At 4:00 a.m., people start to line up at our centers to make sure they get one of the tickets that assures them a meal that day. 4:00 am. You couldn't pay me enough to get me up at 4:00 a.m.! They don't do that just for a meal that costs less than $2.00 per person. They say they come for the meal -- but the reality is that their lives revolves around the day at the center. And if they are too late to get a meal ticket, if they cannot "break bread" with their friends, then they feel that there is no place for them that day.

° Lectures on exercise and nutrition and health promotion -- even if given in Spanish -- are not likely to change habits of a lifetime. Cubans do not eat salad. We do not eat green beans. We eat too much fat. We consume too many sweets and too many calories. Jane Fonda work-out tapes do not sell in our community. Jogging is not the in thing to do. Many of our people suffer at an early age from heart disease, diabetes, and cancer. So we have to take a different approach: we mix the with the beef and some stew and spices and we call it carne con papas. We cut up the beans, mix them with salad greens and diced tomatoes and potatoes and we call it a Latin salad. We don't have something called aerobic dancing -- but we do put on some Latin salsa music around eleven o'clock every morning and we dance, stretch exercise and clap. Almost everyone participates -- except the incurable domino players. And anybody who wants to can get up on the stage spontaneously so we have daily impromptu Amateur Hours -- with everyone dancing and singing along. We have scheduled nutrition classes that they attend. But more important, there is regular, ongoing health screening for diabetes, cholesterol, blood pressure, and glaucoma that picks up danger signs at an early stage and enables us to intervene with one-on-one counselling and referral. What I'm saying is: we do it our way and it works. With food, with exercise, with screening, with education. Health prevention is a by-product of the way we create a sense of family and companionship and community.

* The meal we serve is, for many of our clients, the only hot meal of they get. For some, it provides their only food: they save the fruit and the little container of milk for their evening meal. The food tastes like it is Cuban food -- but it is carefully selected and balanced to meet most of the nutritional needs of our clients. Just as important as the nutritional content of the food is the fact that people eat it and digest it in a social setting. For many, it is the only time when they are not eating alone -- if they even sit down to have a meal in the one room garage apartments to which many return at the end of the day.

We are their Social Club. But we are more. We are their Eating Club. But we are more. In a real sense, we are their Family and they are ours. This is a country where people live as strangers, where the extended family that dominates Cuban tradition is disintegrating, where the elderly are not honored or valued, except at election time. Those are realities. But they are not unchangeable realities. We can alter them. We are altering them. And I want to tell you how.

You can sum up almost everything we do in health promotion and risk reduction in two words:

Participation and Contribution.

PARTICIPATION

First let me talk about Participation. Participation is health promotion in a fundamental sense. Participation is risk reduction.

1. You cannot preach health promotion and expect behavioral changes. You have to create a peer culture where health promoting activities are taken as the norm, where it is socially accepted to have your blood pressure taken or your sugar level checked.

2. Mind and body interact. Social interaction and mental stimulation are not reimbursable under Medicare as a treatment modality. But we are not willing to wait until social isolation becomes so acute that it requires medical intervention, hospitalization or institutionalization. I can show you specific cases where our health screening program caught problems and prevented serious medical complications -- problems that were not caught and would not have been

caught by the HMO's or PPO's in which our clients are enrolled. But that is the tip of the iceberg in terms of our real contribution to health promotion and risk reduction.

3. Isolation kills -- but before it does, it runs up bills for ambulances and paramedics and emergency rooms and doctors and drugs. If health was only a matter of chemistry, you could hook us all up to IV's. But health is a matter of the spirit, of the will to live. If I didn't know it before last year, I learned it the hard way when the Gramm-Rudman cuts took effect. We had to cut transportation. Which meant that we had to shift some of our people to other centers as a matter of cost effective administration. I watched two of those whom we transferred to other centers go into deep depression; I saw them cry and I saw them grieve. I saw them mourn the loss of friends, the loss of everything familiar and precious. I saw people at the centers to which they transferred try to console them, comfort them, love them. I saw them get identical meals and identical nutrition at their new centers. They lasted only a few months -- two months in one case, three in another.

There is more to health than nutrition. Eating is a social activity and human beings are social animals.

That's why our day starts with news and current events, followed by games (bingo and dominoes and a Spanish equivalent of Scrabble) and by classes (arts and crafts, English, citizenship, sewing and knitting, nutrition). And that is followed by an hour of dancing and singing and impromptu solo performances. Then comes lunch. The social activity, the participation, and even the gossip is as important as the food. The food makes it possible. But it is the totality of the program -- PARTICIPATION -- that promotes health.
It is difficult to convey the fierce attachment people have to the Center -- until you confront a grim reality. For many, the day ends when they leave the center. The rest of the day consists of going through the motions necessary to fill the time -- until they can return to the center the following day.

Participation is one key to health promotion. It is beautiful. It is deeply moving. I wish you could see it first hand.

CONTRIBUTION

There is another element of the program that I want to stress because I think it is also a key to Health Promotion. That element is Contribution.

I think there is a basic human need to feel valued, to feel needed. I think when people give to others, they feel their own lives to be important to others. And that gives them something to live for -- because others depend on them. That's why contribution is a key element of the program in Little Havana.

I think it is a key -- not only to Health Promotion -- but also to justifying expansion of the program.

We feed thousands of people each day with a staff of only 36 employees. Most of the work is done by our clients themselves. They dish out the food. They serve the food. They clean up after the meal.

But that's not all they do.
They are part of a transportation pool that supplements our four buses.

They teach the classes we run at each of the centers.

They provide much of the counselling.

They help our nurse to screen for health problems.

They keep the books, add up the figures, tabulate the number of meals, the number of units of service, the flow of dollars.

They serve as receptionists and guides and tour conductors.

They run the Happy Times; they stage the dances and the parties and the special events.

And those who are too disabled to do other things run the telephone assurance program that keeps us in touch with those who are bed ridden.

Our clients do not not consume services; they are not just "takers". They give; they produce service. And they are proud of what they do.

Many programs for senior citizens involve them as volunteers -- though none do so as extensively as Little Havana. That contribution is a form of health promotion. Life is about more than taking. Life is about more than looking out for number one. I have seen people make themselves get well, force their bodies to get well -- because they felt they were needed by others.

I think that the element of CONTRIBUTION is not just central to health promotion. It is also central from a budgetary point of view. I think it is a key to justifying expansion of the program -- and expansion is critical because the needs are increasing astronomically.

That's why this program has to be about more than simply eating. It has to be about more than participation. I think it has to become a vehicle by which the elderly can help enlarge the pie, help expand the total sum of service available to all.

Let's be candid. Concern over costs, over limited dollars lies behind much of the concern over prevention. Prevention is cheaper than medical care and hospitalization.

But in an era when everyone is concerned with cost containment and budget cuts, generalized talk about "prevention" and "risk reduction" isn't enough. We need to do more, to demonstrate more, to prove more. And I think that can be done.

I think it is possible to put a conservative dollar valuation on certain types of prevention. Thus for instance, if you send a person home from the hospital without an adequate support system during recuperation, I think you can prove that you run an increased risk of that person being readmitted to the hospital. And that has demonstrable dollar implications. But beyond that, it is very difficult to convince skeptics that efforts at prevention really save money -- even though as a matter of common sense, we all know it does.

I would be reluctant to stake the survival of these programs on a claim that we prevented x number of hospitalizations by keeping people happy or even by insuring that they received minimally adequate nutrition. I think it's true. I think we have prevented the need for emergency medical care, for hospitalization and even for institutionalization in specific cases.

But I'm sure some economist would respond that it would be even cheaper and more cost effective if the elderly just didn't live so long, once they had stopped adding to the GNP.

I think the case for adequate funding for the programs we run has to rest not only on risk reduction and health promotion. It also has to rest on CONTRIBUTION.

That is why our new direction at Little Havana is to use the service programs we run as vehicles to enlist our clientele as producers of service. We are trying now to utilize the meals program, the educational programs, the social programs we operate as part of a strategy to expand the variety and volume of service.

Let me mention two examples that go beyond the extensive volunteer activity I have already described.

First, at Little Havana we have just created what we call Club Des Amigos. It is a program where our clients help other senior citizens who can't participate in our programs because they are bed ridden or incapacitated or recuperating from a hospital stay. They visit them evenings and weekends. They provide companionship and respite care to families. And for each hour of service, they earn a service credit. Then, later on, if they or their family needs help, they can use the service credits to get that help. It's a little like a blood bank. (Give now. Draw down if you need it later.) It's a little like a barter system. (My time and service now for someone else's time and service later).
It means that for the first time we can actually launch a new home visitation efforts, a transportation program, a shopping program. And we can expand our telephone assurance program by enabling the home bound and bed ridden to earn credits giving companionship to others by phone. That means we are expanding the supply of service by enlisting our clients to help others.

The second example addresses the fashionable topic of intergenerational equity. More money in services for the elderly does not have to take from the young. It can be a vehicle to promote services by the elderly to the young. We tested that idea a few years ago with Project Rainbow. -- a pre-school day care program run by senior citizens. It worked. It was beautiful.

Now we are going to try it again -- using service credits. This time, senior citizens will operate a pre-school day care program for low income families, for single heads of households, for mothers on welfare. The families will pay back by being part of a drivers pool, evenings or weekends -- or by having relatives or friends or older children provide services to the elderly. The flow will go both ways: from old to young and from young to old.

For us, in Little Havana, this is a way of preserving a tradition that makes the grandparents a major figure in the raising of children. It is part of a tradition of respect. It is a tradition that appreciates that we need the wisdom and the values and the experience of older generations to help us raise and teach and yes, even discipline our children. It's a way of recreating the extended family in an age where too many families are isolated, where too many children grow up without ever knowing their grandparents.

We have tested the concept. We know it works. And we will be launching it again. If you saw the energy, the vitality and the joy that caring for children brings to our elderly, you would understand why I call it health promotion.

Giving to others brings life; I can't prove that it will prevent illness. But I don't have to -- because if the dollars you spend for the elderly produce services for the young, then you have a degree of cost effectiveness that can't be equalled.

And that's why our new thrust at Little Havana emphasizes both PARTICIPATION and CONTRIBUTION.

Both together promote health. Both together also expand the supply of available services -- for everyone. It means that instead of pitting old against young for scarce resources, investment in health promotion also becomes investment in building family and neighborhood and community.

Senator **Mitchell**. Senator Graham?

Senator **Graham**. Thank you, Mr. Chairman. I want to again thank each of the members of this panel for extremely provocative, thoughtful, insightful, and wise series of statements. I would like to ask a few questions.

Doctor, you talked about the importance of identification and provision of services for those elderly who have a high risk for depression or other forms of mental illness. What steps would you recommend to help identify those persons in the population who are at high risk? And what measures would you recommend Federal policy might initiate in order to facilitate that identification?

Dr. **Eisdorfer**. Thank you, Senator Graham. There already exists the technology for screening for depression. It is used primarily in research settings of epidemiologic work, both here and in various forms abroad. That technology could easily be employed in screening people.

In a recent study, for example, at Duke University of the central North Carolina area, as high as 17 percent of all residents in the communities—which involved over 1,000 people—showed the signs of depression.

So, the technology exists for screening them. It can be done by interview, depending on what you are willing to take in the way of false positives and false negatives; but those data are already in, and we could apply that nationally to screen for depression. The intervention could take various forms, depending on the nature Of counseling support, social connectiveness of the kind that Ms. Carbonell talked about are absolutely essential.

The kinds of depression we are talking about are not the psychotic depressions whom the psychiatrists must take care of, or some psychologists; but we are talking about the more general level of depression—sadness, grief—which is more often seen by the medical caregiver—the primary care physician—than is seen by the psychiatrist.

Much more psychotropic drugs, as I pointed out, are given by family practitioners, primary care physicians, even surgeons, than are given by psychiatrists. So, we know that those people are out there; and we feel they should be identified and given much better care.

And I am convinced, and the data would support me, that we would reduce not only their grieving, but we can also substantially reduce cost of care.

One other point that I guess I would be remiss in not mentioning. A lot of older people have losses. That is one of the tragedies of late life, which is you lose your spouse, for example, if you are a woman, and so on. Those losses are associated with alterations in mortality and morbidity. We have known those data for a long while.

We now have data showing that significant losses change your immune system,, which make you vulnerable to a variety of other diseases. So, I think to echo what Dr. DeVito says. We have the research technology out there, but we as a country must commit ourselves to doing something about it.

Ms. Carbonell used my favorite line: The ultimate cost containment measure is to let people die. We don't have to worry about taking care of them. If that is the country you want to be in, you know, I can't imagine that either of you would support that. We just have to have resolve.

Senator **Graham**. To what extent are these opportunities for identification of high-risk individuals for mental disease currently being used, Dr. DeVito? And how well is the network of services that you discussed in place to respond to those who are identified?

Dr. **DeVito**. One of the points that I was trying to make in response, Senator, is that we have underutilized resources We really think of our medical care system and our whole social services delivery system in very fragmented ways. We think of particular reimbursement for a particular modality or a particular service, instead of thinking of those as a continuum of caring—to steal some of your lingo—for people who have a continuum of needs.

People don't exist in isolated episodes, and yet that is the way we capture and categorize everything we do, including entitlement and reimbursement. There are multiple opportunities and in some unique settings—in university settings, in some creative, innovative settings around the country. There are people taking up those opportunities.

Although in some ways the hospital initiatives programs have blanketed the country, these 24 sites are a fraction of the approximately 8,000 hospitals in the country. At those sites, I think opportunities have been taken up, and there are probably several hundred other hospital sites interested in those same kinds of opportunities.

Speaking from my family medicine role—there are other providers who routinely attempt to make inroads into continuity of care. They are not specifically trained to do this, nor are they reimbursed for those activities.

When we send a community nurse to follow up on someone who has been discharged from the hospital, one of the most important things we do is something that you won't find in any enabling legislation. We make sure that the services that we have assessed as necessary are actually delivered; and that means that if someone is supposed to show up at 1 o'clock they do. And it also means some things that would not be labeled medical care are undertaken—like feeding and procuring medication—and that major problems are avoided such as being unnecessarily rehospitalized in one or two days because of something like dehydration. Those aren't usually on the laundry list of preventive service of, for example, an expanded HMO package.

I think, in answer to your question, we have some opportunities; we certainly have the capabilities; but some of the programs that have come to the doorstep, especially in south Florida, haven't appropriately met those challenges.

Around here, people talk about Medicare minus, not Medicare plus; and they really talk about abbreviated packages available to people because we are not taking the opportunities to link together the resources we already have.

So, I think we have the capability to do a lot more than we have already done. We certainly could come up with a priority list of things that are still service gaps, but first we should take the opportunity to do what we already know how to do.

[Applause.]

Senator Graham. Ms. Carbonell, you made the point strongly of the importance of the integration of social and medical services. What recommendations would you make in terms of modifications in current Federal programs—Medicare, Older Americans Act, or others—that would move in the direction of a closer integration of social and medical services?

Ms. Carbonell. I guess this is my chance right now. [Laughter.]

I think Carolee and Dr. Eisdorfer touched upon the key elements, that the information is there, the studies are there; and the expertise in all the medical fields and social fields is there.
happen. It happened, but it happened very fragmented and at different levels.

For instance, we are about to launch a new program which goes back to my presentation on how we use the contribution aspect of participation to be a key element to help promotion We are going to open an adult day care center, which is going to be housed within the main center—the senior center facility. We want to make it more than adult day care. We want to make it a health care facility where individuals who are not properly placed in senior center type activities can come in and get more specialized and a more protective setting of care, but we want to add the health piece.

We are trying to speak to the University of Miami, to FIU, for the background and the expertise to help us carry this through; and we have been talking to Dr. DeVito. We have also been working in the service credit program of linking volunteers for homebound clients to go serve some homebound clients. In return, the people earn credits that they can later bank on. [Laughter.]

We have started through the credit service program, and we hope that the adult day care piece can be expanded to a health piece that will have other services tied into it, making it under one roof, more cost effective to run the program.

So, the type of linkages and coordination between the medical and social fields are certainly there. I think it is of mutual benefit to both markets to do the linkages and coordination; and that would be the most ideal situation.

The preventive screening and upgraded directives on Older Americans Act amendments to include more preventive screening on the prevention side of the spectrum, I think, is needed. But I think we need to have a tightly knit continuum of care, the alternatives the people will have, so that people will have that support along the way.

Senator Graham. Thank you, Mr. Chairman.

Senator Mitchell. Thank you very much, Senator Graham. I commend all three of you for your statements. They are obviously based upon knowledge and experience.

Each of you commented on the difficulty of assigning a benefit to prevention where it is easy to confront the cost. Both Ms. Carbonell and Dr. Eisdorfer said that, if we want to let people die, that is the cheapest thing. That is an effective rhetorical point, but I must tell you that the reality is that we have to confront the budget problem.

We have just come through the very difficult experience of implementing the budget reduction package that was negotiated, and I was the principal Senate conferee on Medicare and Medicaid. For a period of 2 weeks, we struggled day and night on how to reconcile the very limited resources with the many problems that we face: and at every turn, those of us who favor preventive steps were confronted by the adamant, vehement opposition of the Administration to anything that would require the immediate expenditure of additional funds, notwithstanding instances where we were able to demonstrate a future benefit, not to mention those areas where we can't demonstrate financial future benefits.

Whether we like it or not then, that is the playing field upon which we must compete—a very serious budget situation—the rapidly rising cost of health insurance—publicly funded health insurance programs in the country.

So, we need not only to be able to score effective debating points with those who hold a contrary view, but we must be able to demonstrate tangible, effective, cost effective results; and I believe they are there.

And I agree with Ms. Carbonell that a healthy, happy life is something that has a value of its own, obviously.

So, that is what we have to deal with, and that is what we need help on.

Dr. **Eisdorfer**. I used to run a $425 million medical center where we had the same kind of problems. We had to cut, we did cut effectively. And I did learn a couple of things from a very senior management consultant.

One is that, when your business is in trouble, typically the mistake is to cut R&D. The effective solution is to invest more money in R&D because that is the only way you are going to get out.

And what we are saying here, I think, is that one of the key variables in research and development is to find ways to prevent disorder, and I am willing to fight that battle on long-term economic grounds because I think it is true. A piecemeal approach to the delivery of health and human services has been very destructive.

And as you pointed out, we can prevent disease and we can save an enormous amount of money. So, I think that that is really one crucial——

Senator **Mitchell**. We need to document that.

Dr. **Eisdorfer**. And I think those data are there, which then leads to the other point, which is that you really need to think about it in a different kind of way and make connections that we simply don't make. One of the reasons for the hospital initiative program was we knew—and we have known for 25 years—that if you develop social services, you can prevent and deal with acute medical problems.

But nobody will pay for social services, while they will pay for sickness. We don't have a health program in the United States; we have a sickness program.

I get paid only when I take care of sick people. I take care of an Alzheimer's patient, I will get paid. I won't argue that I don't get paid enough. I probably don't, but that is irrelevant.

What I don't get paid for is, if I see a patient for 30 minutes, I don't get paid for 1½ hours. I work with the family. What is saving the Government money, frankly, is not my work with the patient. That is a human and medical problem. I take the patient out of a long-term care institution by supporting the wife, by supporting the husband, by educating the kids. I don't get a nickel for that, except for the program that the former Governor Graham initiated, and the current administration—bless them—has continued. Without that supplement, we couldn't run that program, and I can document now 350 patients and we have probably kept about half of them out of long-term care at unit cost of about $30,000 per year per person, for about four years.

That is what I meant. We have got to have the resolve and very candidly—and I don't want to get involved in the politics of this thing—but just because they are the administration does not mean they are right. And I think the American public has got to be alerted to this, and I think we have got to take the cause to the people. We have 35 million Americans who aye directly impacted by this, and we have millions more—their families—who are indirectly impacted by this. I am sick and tired of seeing people fly down from New York and call me up at 1 o'clock in the morning because I haven't been able to provide the kind of intervention that I know I could do if I was supported.

I am sorry; I didn't mean to get so passionate, but I think that is the issue.

Senator MITCHELL. This is a place for passion. Go ahead. Would either of you care to comment on that?

Dr. DEVITO. Let me say there are two issues that came to mind that I would sincerely like to raise. First, there are numerous examples of cost savings from particular settings that I think are very illustrative.

One example is that the community care for the elderly program, with which you are very familiar, does run a tremendous program in our community; but our hospital initiatives program referrals have encountered a waiting list of about 9 months for personal care services provided by CCE. During that nine month time period, the people on that waiting list were hospitalized at a higher rate—rehospitalized—at a cost of $5,000 or $6,000 or $7,000 or even $8,000 per stay; that is, they were hospitalized at a higher rate than for people for whom we were able to get personal care services. Now, those are sort of impressive to the people who have the responsibility to care for these folks; and that is what I meant when I said a "cruel substitution of rehospitalization" for "cheaper in-home services."

I don't think that the kind of work that is underway generally recongizes what it really means to keep a frail, elderly person independent. Our demonstration programs seem to take what I say is an end-stage case management approach. We say: Give me the people who are ready for nursing home placement and show me if you can keep them in the community for the same cost or a lower cost. Well, give me those people 1½ years earlier when we already know they need in-home services and we already know they need hot meals and we already know they cannot do their own laundry or couldn't even get to the telephone when they were in trouble.

Give me them then before I have to get HRS to bring them in in a totally debilitated state, and we will save you a tremendous amount of money. The "end-stageness" of programs, the catastrophic nature of our thinking and the categorical nature of our thinking—I think is not ours—it is theirs is very painful and costly to us.

The other point that I wanted to raise is that I think there are opportunities to think in a very "whole system" way, the same way that the medical field has learned that body and mind cannot be separated; we also learn from an administrative and medical care organization perspective that the whole system should go together. Some of that type of planning has entered into the development of capitated payment and the HMO systems for the elderly here.

What has been grossly missing is something that we knew a long time ago. The incentives in the health care delivery system work very well. Under fee-for-service payment systems, we created an incenitive for overutilization; and everybody said that that made perfect common sense. If you paid people to deliver services, you had better watch out that they didn't deliver too much.

What we didn't do under some of these dramatic demonstrations in capitated programs was to provide the appropriate counterforce, that is, a quality assurance program to make sure that there was not underutilization of services.

Again, there are multiple anecdotes to describe inequities and poor care the south Florida area where physicians have two rosters—prepaid patients and free-for-service patients—where the service delivery is grossly different under a prepaid system and a capitated system.

There is a real opportunity to broker and administer coherent and rational services among multiple entities if there was an appropriate overseeing quality assurance mechanism to do that. So, when I said Medicare minus before, I was feeling a little guilty about it. It is Medicare minus if you don't look at the bottom line; and to me the bottom line may have to be cost effectiveness on one dimension, but in another dimension, it is the relationship between what you could do and what you are actually doing for frail elderly people, given certain resources.

Even without expanding resources per se, I believe tremendous improvements could be made in the care of older persons by reorganizing the service delivery continuun and by careful monitoring of quality outcomes.

[Applause.]

Senator MITCHELL. Thank you all very much. We appreciate it. I will now ask the next panel to come forward. They include Tessa Macaulay, coordinator of Gerontological Programs at Florida Power and Light in Miami; G. Curt Meyers, director of the Wellness Center of Lee Memorial Hospital in Fort Myers, and Elliott Paleysky, executive director, River Garden Hebrew Home in Jacksonville.

Good morning, and thank you all very much for coming. You have heard the previous panel, and we look forward to hearing from you. We will begin with Ms. Macaulay.

STATEMENT OF TESSA MACAULAY, COORDINATOR OF GERONTOLOGICAL PROGRAMS, FLORIDA POWER & LIGHT, MIAMI, FL

Ms. **Macaulay**. Thank you, Senator Mitchell. In my testimony this morning, I would like to focus on a very narrow and rather unique facet of the risk reduction and health promotion process: the role that can be played by nonhealth-related industries in addressing a wide range of issues of aging and health through education—why a corporation would want to do so.

Florida Power & Light Co. is in a rather unique position in regard to the State's older population. With a service area that covers nearly half the State, more than 50 percent of our residential customers are over the age of 50. FPL's involvement in addressing the issue of aging predates the 1981 White House Conference on Aging. Marshall McDonald, FPL group president, who has been a member of the National Advisory Committee for the conference and co-chaired the mini conference on the national dialogue for the business sector, realized the growing significance of the older age population to FPL.

A major percentage of the company's customer base was and still is composed of older people. Their numbers are growing and continue to increase as the percentage of the total population on the State and the national levels increases. Nearly 2 million of the company's customers are over the age of 50. This group, if brought together by a common bonding element, represents a potentially powerful force for the company in both positive and negative terms, a group with whom maintenance of good relations simply makes good business sense.

The White House Conference on Aging in 1981 provided further stimulus for Mr. McDonald to focus on the issues of aging for reasons related to being a responsible corporate citizen, as well as other far more pragmatic business-related considerations. He was concerned that, all too often, Government is expected to provide all the solutions and that frequently the tax dollars invested in those efforts far exceed the benefits felt at the grassroots level.

He believed that if FPL could make a contribution toward reducing some of the problems of aging and that our efforts, together with those of other interested parties may help to prevent or reduce the scope of the cost of tax supported programs. Mr. McDonald sees FPL contributing something of substance to the aging population of this State and even beyond our boundaries by example that we set for others to follow. He referred to our efforts as doing good while doing well.

Some of these goals include: First, to broaden the base of knowledge of the real issues of aging and then to communicate this information to businesses, Government, and educators, that is, to assist all segments through the dissemination of information.

Second, to use the resources of FPL organization to stimulate the appropriate entities to do something about resolving the problems. In other words, to act as a catalyst for action.

Third, to begin to influence today present and future aspects of aging that may have an impact on the State of Florida; and finally, to provide products, services, and ideas to enhance the quality of living for older people to help them maintain their independence.

As part of the process of enlightened self-interest, we regularly conduct research into the needs and concerns of older people. Paramount on the list of concerns were those issues related to the loss of personal independence. Health and wellness headed the list, followed closely by personal finances, security, safety, fear of crime, and adequate nutrition. All of these fears and concerns related directly to their wish to maintain their independence, their dignity, and their sense of personal worth.

At FPL, research is used as a starting point and a guidepost for our activities. We have initiated a number of programs in response to key issues brought to our attention by our consumer advisory panels, which are made up of older Floridians. In the time remaining, I would like to describe a few of these, programs briefly.

Our efforts began internally with a program we call Employee Sensitivity Training. Employees who have customer contact are trained in the problems of aging and how to deal more effectively with older customers and how to be a source of assistance to them.

Another program: Beginning in the spring, we will send out a gerontology van containing nearly 70 linear feet of displays and literature aimed at improving the quality of life of older people. This van will travel the State, visiting malls, festivals, condos, apartment complexes, and other places frequented by older people. A significant portion of the quality senior living van will be devoted to health and wellness education.

FPL publishes a quarterly newspaper known as The Times of Your Life, which focuses exclusively on aging information. Free to anyone who requests it, nearly a Quarter of a million copies annually are distributed to individuals or in bulk to senior centers and other organizations working with older people.

We also offer a number of consumer education programs which have cost saving ideas as their goals. These programs have indirect benefits to health and wellness because the money saved through wise energy use is then available for personal needs.

We also are sponsors of and participants in a number of senior fairs and festivals, which have as their goal senior education, and always a health and wellness orientation For several years, we have been participants in the Vial of Life Program, which provides a convenient and visible source of individual's medical information for emergency medical crews. Health and wellness information programs are a significant part of our aging activities.

We have internally produced and purchased information booklets on a variety of subjects and distribute thousands of copies across the State free of charge.

I will mention one more activity and then close my testimony. We have, in each of our five operating divisions a consumer affairs advisor whose responsibility it is to work closely with the professional aging network in their area. They are, along with our gerontology department and other executives, providing advice, resources, and expertise to the organizations which provide services to older people.

In the brief time allotted, I have tried to give you a sense of how a corporation or a business entity can make a material contribution to reducing risk through education.

In my opening testimony, I referred to our activities as very narrow in a rather unique facet of the health risk reduction process. While corporate involvement in consumer education is indeed very narrow and a unique element of the process, it is one through which enormous leverage can be generated, both for the receiver as well as the giver. It is also an area in which most consumer-oriented businesses are rather uniquely positioned to make a contribution.

We know from our experience and the results of our research that our customers and others who influence them appreciate the efforts we contribute through our quality senior living. We believe that businesses, Government, and professional gerontology networks, acting in harmony, have the potential to make miraculous progress, especially in reducing risk through education and awareness.

We appreciate the opportunity to share our views with you.

[The prepared statement of Ms. Macaulay follows:]

Supplement to Testimony

by

Tessa Macaulay
Coordinator of Gerontological Programs
Florida Power & Light Company

We can think of no greater service a corporation can perform than to assist people in maintaining their independence and sense of self-worth. At Florida Power & Light Company, we are devoting significant time and energy to addressing the issues of aging through education, action and involvement. We are doing so because we believe these activities represent an investment that carries with it a significant and tangible return.

With more than 50% of the Company's residential customers falling into the age 50+ group, we view our Quality Senior Living Program as a unique opportunity to both assist and to build good relations with a very important corporate constituency. We have a vision and a plan — to identify and recognize the needs of older adults, to help to meet those needs, to encourage others by our example to do likewise, and to become a leading private sector advocate of Quality Senior Living for older people everywhere.

Our Company has a major stake in the future of the State of Florida and older people are becoming an increasingly powerful and significant part of that future. Between 1980 and the year 2000, Florida's age 55+ population will have increased from 2.8 million people to nearly 5 million, with the greatest percentage increases accruing among the old old.

These trends carry with them significant implications for Florida Power & Light Company and, indeed, for every other business across our state. With regard to older age demographics, Florida is today where the rest of the U.S. will not be as a whole until well into the 21st century.

Because our state is literally at the leading edge, the aging of our society creates both significant problems and great opportunities.

As a truly customer-oriented public utility, it is incumbent upon us to understand as much as we can about this very major constituency. The more we can learn about the process and the effects of aging, the better we will be able to respond to the needs and react to the perceptions of this group of customers. As a corporate citizen of Florida, we are in a unique position to participate in the state's evolving role with the older adults and it is our intention to be a major participant in future progress.

We are pursuing what we like to refer to as a course of enlightened self-interest — being pro-active toward a recognized major influence upon our operations both present and future for the good of the Company and for the good of our society in general.

As our society ages, businesses such as ours must prepare themselves to do what they can to assist customers in developing an understanding and awareness of the many opportunities for a better lifestyle — one that fosters independence.

At FPL, we're committed — in actions as well as words — to helping our older customers and all older people in our service area to achieve a quality of life that leads to independence, dignity and fulfillment.

Historic Perspective

Nearly 3.5 million people age 55 and over live in the State of Florida. This number is expected to grow by more than 30% between now and the year 2000 when the state's senior population will approach 5 million people.

In percentage terms, the largest growth will come from the group referred to as the old old — those age 75 and above. Between now and the year 2000, Floridians age 75-84 will grow by an estimated 62.4% while those age 85 and over will increase by 110%. These numbers are significant because they are reflective of a group that is more prone to declining health, more likely to live alone, more apt to have lower incomes and more certain to see their desire for independence compromised.

Of the 3.5 million older people living in Florida today, more than one half of them are customers of Florida Power & Light Company. That constitutes about one in every four people in our Company's service area.

The Company's interest in aging issues and its active involvement in seeking solutions to them dates back to the early 1980's when FPL Chairman Marshall McDonald was named to the National Advisory Committee of the 1981 White House Conference on Aging and co-chairman of the Mini Conference on the National Dialogue for the Business Sector. His involvement in these aging forums led to the establishment of an active effort to address aging issues across the corporation.

A gerontology department was created to coordinate the Company's activities in this arena, research was undertaken to develop an accurate assessment of the issues of aging in Florida, staff positions in each of the Company's major divisions were created to assure grass roots coordination of activities as well as to serve as listening posts for upward communications from older people.

In the ensuing years FPL has initiated more than 100 programs and activities aimed at enhancing the quality of life among older people through education and involvement. FPL Group has recently created a Quality Senior Living Council, chaired by Mr. McDonald and staffed with senior executives from all FPL Group subsidiaries and those FPL department's that can make a contribution to the effort. This group meets periodically to chart the course of the Company's role and activities on behalf of older people.

Florida Power & Light is in a truly unique position because of our ability to touch more older Floridians than any other business entity. As a result, we are listening to their concerns and working at several levels to be responsive to those concerns.

The following pages highlight many of the contributions we are making to Quality Senior Living among older Floridians and, hopefully, stand as a repository of ideas for other business entities to replicate or use in becoming involved as well.

Our research among older Floridians has shown that the areas that concern them the most are health and wellness, finances, safety, crime and security, transportation and loneliness. They have also indicated that leisure time activities such as hobbies and recreation are high on their list of life-enhancing interests.

As a company that listens to its constituents, we have worked within the limits of our regulated business environment to be responsive while at the same time providing meaningful assistance toward addressing the key issues and interests.

We have been frequent co-sponsors of senior-oriented events, usually run under the auspices of a non-profit aging organization or community group. These events are excellent vehicles for reaching large numbers of older Floridians with information and ideas on how best to pursue Quality Senior Living.

The types of involvement vary from one operating Division to another but often include use of FPL facilities for seniors organizations to meet; food, clothing, and blood drives; festivals, fairs and athletic events; and assistance with the planning and production of brochures, videos and other promotional materials for non-profit sources of help for older people.

Florida Power & Light Company also works closely with numerous national, state, county and local aging organizations, providing in-kind services, expertise and training and assistance with production of publications.

In addition, the Company frequently provides speakers to organizations in support of their programs and activities.

"Bridges to Understanding"

Florida Power & Light Company has for several years conducted research into the needs and interests of older people. Armed with the knowledge of their concerns and areas of interest, the Company believes that the key to a better life is education.

Whether it is health, safety, finances or personal security, the greatest and most resource-effective contribution we can make is through education. Accordingly, Florida Power & Light Company's Quality Senior Living Program places a heavy emphasis on consumer education activities.

The Quality Senior Living Program components are tailored to the varying social and geographical needs of seniors throughout the FPL service area. The Program's objective is to be responsive by being relevant, to be effective by being in touch.

This is achieved by working closely with the professional gerontology network and gerontological agencies and by coordinating programs for older people close to the source of need.

Whether it is working with Florida State University in the establishment of the Mildred and Claude Pepper Eminent Scholars Chair in Social Gerontology, or creating videos that show older people how to shop more effectively and economically, or a brochure on wellness, the Quality Senior Living Program places a high premium on activities that educate.

In the spring of 1988, the Company will begin operating a Gerontology Van which will travel the state and reach hundreds of thousands of older people with tips and tactics for a better life, including special emphasis on reducing health risks.

Four times each year, FPL publishes Times of Your Life, a newspaper devoted exclusively to the interests of older people. Times of Your Life is distributed free and it is estimated that its 55,000 copies each quarter reach many times that number of older people.

The Company regularly publishes brochures and pamphlets and has produced a video related to ways to save energy and to cut down on the cost of utilities. Distributed to seniors free of charge to help them reduce their energy use, this literature includes information cards on the following subjects: Water Heating, Heating, Cooling, Energy Efficiency Ratio, Refrigeration, Windows, Waste Heat Recovery, Swimming Pools, How to Read Your Electric Meter, Cooking, Lighting, Insulation, and Tips for Watt-Wise Living. Additional Quality Senior Living brochures which are purchased and distributed free by FPL cover a variety of topics from dealing with heat stress to taking care of elderly relatives; physical health in later years; good nutrition; Alzheimer's disease; mental health in later years, and safety related pamphlets.

Other educational materials such as senior resource guides, information and referral brochures and senior spotlight bulletin boards in branch offices are a regular part of the Company's program. In addition, the Quality Senior Living Advisors regularly speak before seniors groups on topics of interest across the Company's service areas.

"Standing Up and Speaking Out"

One measure of the character of a corporation is in its recognition of community needs and its responsiveness to those needs over and beyond the corporation's basic business activities. We also believe that great strides can be made if the private sector and public sector leadership can work in consort to solve problems.

This advocacy on behalf of older people is another key element in our Quality Senior Living Program. We maintain close working relationships with key governmental, aging association, advocacy and public sector groups and organizations nationally, statewide and locally.

As an example, the Company is currently working with the State Chamber of Commerce to implement the recommendations of a its standing Business and Aging Committee. This body was an outgrowth of a Special Task Force on Aging initiated and chaired by FPL. FPL also provided staffing group dynamics training and the production of a high-quality video presentation, for the Committee to use in attracting a broad cross-section of Florida businesses to become involved in the issues and needs of the state's older citizens looking toward the 21st century.

The Company has also begun work with the Gerontological Center at the University of Florida to share ideas and information, to learn more about their activities and to offer them opportunities for field work within the various FPL business operations.

FPL also maintains an active speakers' bureau, is a supporter of the Alliance for Aging Research (a national research foundation supported by corporations which brings business, political and academic leadership together to address aging issues) and is represented on nearly every key aging body at the state and national level.

Because FPL is a regulated utility, it is limited in terms of what it can and cannot do in the form of financial support for non-profits. However, the Company's executive, supervisory and employee groups volunteer thousands of hours a year to providing training and consulting to non-profits as well as working for and on behalf of these organizations.

The Company has found that the benefits of "loaning" expertise to an organization most often outweigh an outright gift of money because of the value-added aspects of professional problem solvers bringing business perspective to work in tandem with the trained care providers.

In late 1987, FPL was the lead sponsor and one of the principal organizers of a major Florida Chamber of Commerce and Department of Health and Rehabilitation Services Conference on Business and Aging. The state-wide conference was largely organized and staffed by FPL personnel. In addition, FPL gerontology and consumer affairs advisors served as committee people, workshop moderators and speakers.

Each year FPL conducts various activities related to Older Americans' Month Promotions.

"Tips, Tactics For Independent Living"

Among the principal concerns voiced by older people touched by the Company's Quality Senior Living Program is their ability to remain independent. The five things that most often contribute to loss of independence are poor health, accidents, financial hardships, becoming a victim of a crime and lack of family or peer support. Accordingly, FPL through its various departments and subsidiaries carries out a number of programs whose purpose is through education and outreach to help its older constituents avoid these independence-threatening factors. Among the more than 100 different activities are:

62+ Program - For those whose main source of income is Social Security, the Company's 62+ program automatically extends the payment due date to coincide with receipt of the Social Security check. Customers need only apply and supply proof of age. 62+ members also receive the Company's consumer publication, *Times of Your Life* at no charge.

Double Notice Protection - The customer authorizes FPL to send a copy of any delinquent notice to a person of their choice. It helps guard against discontinuation of service if the customer is away from home unexpectedly or cannot be reached. This program is particularly well suited to elderly and infirmed customers who may misplace or forget to pay their bills.

Community Information Programs - Offers speakers and 16mm color films free of charge on a wide range of topics.

Specific slide show programs for senior citizens in group living and condominium situations are also presented throughout FPL's service territory. These programs show senior citizens ways they can conserve in individual apartments, as well as the entire condominium building. Senior citizens are depicted caulking and weatherstripping their units, as well as performing other energy saving steps such as raising the thermostat when cooling and changing filters on their heating and cooling systems.

In situations where a slide show presentation is not feasible, a suitcase presentation is used. During this program, seniors are shown ways to reduce their electric bills by turning down cooling and water heating thermostats and other hands-on activities they can perform individually.

Mobile Branch Office - These vans regularly visit condominium and senior communities to permit seniors to pay their bills, handle connects and disconnects, to ask questions or register complaints, and to receive personal attention at their doorstep.

Hello Neighbor - This program operates similar to a Welcome Wagon concept. However, the purpose of this program is to help older people moving into the Company's service area to more easily adapt to new surroundings and to help avert the loneliness that often accompanies relocation to a new state or locale. Loneliness is a particularly common phenomenon among older people, especially the very old who tend to be less mobile. We have also found that loneliness is a contributor to poor health and that active , involved people tend to be mutually supportive when it comes to the question of maintaining good health.

Home Energy Surveys - The Company conducts free home energy surveys geared to helping consumers cut the cost of their utility bills to wiser use of energy, especially air conditioning and hot water heaters. Savings in these areas can be especially important to individuals living on low, fixed incomes.

Security Lighting Program - One of the major concerns of the elderly raised in the research is security related to lighting at night. The Company works with individual consumers, condo organizations and other groups to provide nighttime security lighting programs.

Special Bill Payment Arrangements and Budget Billing - When unexpected personal or economic conditions prevent the customer from paying the bill on time, FPL encourages the customer to contact the office before the past due date. The representative may be able to work out a mutually satisfactory payment schedule to avoid discontinuation of service. Budget billing, which averages customer payments over the year is especially useful to older people on fixed incomes.

Referral Service - When payment arrangements are not the solution, FPL representatives often are able to put the customer in touch with a public or private agency that provides funds for energy assistance, food, clothing, and shelter. In addition, various federal programs are available to assist fixed or low-income households in the area of energy assistance and weatherization.

As part of the ASSIST program, which includes many of the preceding programs, FPL works closely with the Florida Department of Health and Rehabilitative Services in administering the Low-Income Energy Assistance Program. HRS representatives are available at many district offices. Also, applications are available at all offices during the specified time periods each year.

The Residential Conservation Service Program - Offers customers three types of Home Energy Audits to choose from: Walk-thru Energy Audit, Computer Assisted Energy Audit, and Customer-Assisted Energy Audit. Older persons who must make do on retirement incomes benefit substantially from this service which shows them ways to save on energy costs.

Tips for Watt-Wise Living - A monthly column on saving energy costs mailed to over 100 publications. Several columns each year focus on senior citizens.

Vial of Life - The Vial of Life Program is an effort through which the Company, in cooperation with local volunteer organizations, makes available and distributes to anyone who is interested, a Vial of Life kit. This kit includes a plastic container, medical information form and sticker to alert medical crews that a Vial of Life is in use.

The individual's medical information is filled in and the Vial is placed in the refrigerator. In this way, emergency medical teams know exactly where to look for the lifesaving information. To date, nearly 50,000 Vials of Life have been distributed by FPL.

Radio Watch - FPL maintains a program through which line crews, meter readers, and other FPL employees assist local police departments by reporting crimes or other unusual circumstances. This program is not limited to older people.

"Sensitivity, Understanding, And Support"

How a company relates to its customers is the key to building good relationships. At Florida Power & Light Company, older people represent the largest single identifiable group that we serve. Thus, it is imperative that we provide effective, two-way communication between our employees and our customers, especially those who constitute one of our largest constituencies.

Employee training in becoming more sensitive and aware of the needs of the older customer is a natural outgrowth of FPL's management philosophy of strong support of employee development. The Company maintains a formal Sensitivity Training Program, entitled A New Look at Our Older Customer, through which employees who interact with customers are trained about the problems of aging, how to deal more effectively with older customers and sources of assistance for them.

With an eye toward the social, physical and psychological concerns of the elderly, this program instills an awareness of a sensitivity to special situations and concerns when working with older customers.

Simulation exercises demonstrate to the employee how it feels for the elderly who experience a loss of hearing, sight, touch or mobility. Videotapes are used to model communication skills which are helpful in resolving particular concerns of older customers. Finally, employees review and discuss value systems and how to more effectively communicate with the older generation.

Division Consumer Affairs Advisors in each of the Company's five major operating areas function as gatekeepers as well as a conduit for two-way communication between aging customers, the local gerontology network and organizations serving the needs of older people. One of the important aspects of the Company's Quality Senior Living Program is its grass roots planning and strategy and a determination to keep the Program flexible in order to better address short-term issues as well as to be responsive to long-term needs.

The Consumer Affairs Advisors are charged with the development of new programs, analysis of existing activities and response and adjustment where necessary.

The Company regularly conducts research into the issues of aging as well as utilizes the input from a Senior Consumer Advisory Board. This group, which advises FPL on issues of aging, is drawn from the community and represents a cross-section of older people.

The Company also functions as a gatekeeper in a number of ways from its Radio Watch program, to its employees who are sensitive to the issues and problems of aging.

"Retirement, A Beginning Rather Than An End"

In addition to its outward looking programs related to aging, the Company also looks out for its older employees. At FPL, retired life begins at 55 — at least in terms of planning. When an employee reaches this age, an invitation is extended to the employee and spouse to attend the Pre-Retirement Planning Program, a two-day seminar and workshop. A series of experts in such fields as estate and financial planning, legal matters, health, Social Security, FPL benefit programs, pensions and taxation present a broad spectrum of information. Panel discussions featuring FPL retirees and their spouses afford an opportunity to learn what it's really like to be retired.

As retirement time approaches, additional materials, as well as the assurance of individual retirement counseling being available within the Company, are provided. Upon retirement, a number of programs and services are available:

Retiree Clubs - Currently there are seven chapters — six in Florida and one in North Carolina — that allow FPL retirees to meet and mingle at monthly or quarterly meetings that sometimes feature a speaker on either company or non-company related topics.

Retiree Directory - An annual compendium of the names, addresses and phone numbers of all retirees and surviving spouses who wish to be listed, as well as sources to call for information or assistance within the Company.

Alumni Bulletin - A quarterly publication containing information and articles for and about retirees.

All the retiree programs and services are continually monitored to help every employee make the best possible transition from career to retirement.

The Company also offers part-time employment to retirees in areas which require less-than-full-time activity. For example, certain of the Company's Gerontology Programs such as Hello Neighbor utilize retirees.

FPL is one of only eight companies nationwide invited to cooperate with the American Association of Retired Persons in testing a pilot family caregivers program. This program is run for the benefit of employees who have an older person to care for. The various agencies and organizations from the area serving older people are invited in to answer questions, to make presentations and to pass out literature. As part of this program, a fair was set up for employees and numerous aging agencies serving older people were invited to display their "wares" and to meet with employees. All division employees were invited to attend and to learn more about possible sources of help. More than 800 employees attended the festival and information was made available to those who could not attend.

This program builds bridges not only with employees, the Company's own consumers, but with the aging professional network as well.

"Initiative And Responsiveness"

FPL's Quality Senior Living Program is a reflection of the Company's commitment to supporting the needs of older people — those whom it directly touches as well as others who can benefit from its leadership, dedication and determination to helping older folks maintain their independence for as long as possible.

The Company currently works with upwards of 75 organizations who are working on behalf of older people. These are largely non-profit and governmental bodies which can benefit from the expertise and assistance of the Company and its representatives.

Summary

In combining its efforts under the Quality Senior Living banner, FPL has developed a significant educational force in addressing the issues of aging. Yet, for as broad, far reaching and effective as these efforts have been, they represent a very very small expenditure per customer per year.

At FPL, we believe that if more and more businesses would become involved in the educational aspects of risk reduction among older adults, the high costs of treatment and service could be reduced substantially.

At FPL, we also believe that good public relations means helping people and from experience we have learned that the direct benefits received in return are in excess of the resources invested.

Senator MITCHELL. Thank you, Ms. Macaulay. Mr. Meyers.

STATEMENT OF G. CURT MEYERS, DIRECTOR, THE WELLNESS CENTER, LEE MEMORIAL HOSPITAL, FORT MYERS, FL

Mr. MEYERS. Thank you. The data for this testimony comes from The Wellness Center at Lee Memorial Hospital in Fort Myers, FL. The function of the presentation is to present two components. The first is that of risk identification for the population that attends this facility, as well as the effectiveness of health promotion on the changes in physiological and financial areas.

We have seen over 5,000 participants in the Wellness Center since 1984. Of those, we have conducted a study, which is what I am presenting, on 502 participants with an average age of 66.5 years. Sixty-seven percent of these people have been referred to our center by their physicians.

Forty-six percent of these people were men; 53 percent were women. The educational level, which is of interest to this subgroup, is that 33 percent achieved a high school degree or less, and 67 percent achieved a college degree or greater. Seventy-five percent have experienced up to one day of hospitalization per year at the time of entrance, and 26 percent have experienced greater than one day per year in hospital days.

In looking at the cardiovascular risk factors of these individuals, we identified cholesterol, HDL cholesterol, and triglycerides as areas of concern. Of the 502 participants, 70 percent were of moderate risk for coronary artery disease. Sixty-two percent were at risk due to their HDL cholesterol component, and the total HDL cholesterol ratio was at high risk for 46 percent of the participants.

Ten percent were smoking; 46 percent had stopped smoking

In changing from the physiological risk factor to their attitude towards wellness, it was important to note that, of this group, 69 percent had a high interest in wellness. Thirty percent had a growing interest in wellness; 64 percent believed that health is primarily determined by their lifestyle. Sixty-eight percent were willing to change their lifestyle in order to obtain better health, and 77 percent believe that keeping health insurance claims to a minimum is the best way to work within the Medicare system.

As we moved from the risk identification component to the health promotion intervention model to evaluate the effectiveness of the program, we looked at 82 present members of the center' who were over the age of 60. These participants were studied at the time of entrance and then 3 to 6 months after entrance. The average age was 67.2 years of age 35 percent were male; 65 percent were female.

The medical status of these individuals was that 86 percent were referred by their physician to this program; and this is a self-pay program. Seventy percent were taking a physician-prescribed medication at the time of entrance; 57 percent had a history of coronary artery disease, as documented by hypertension, diabetes, or a documented myocardial infarction. Twenty-six percent had a history of orthopedic or metabolic problems; and of the group, 17 percent were classified as healthy individuals.

We evaluated various parameters of these participants, and one of the first areas we looked at was weight. The average weight for the individuals at entrance was 164 pounds; at 3 to 6 months later, the weight for the group dropped to 162 pounds. This is clearly a loss of 2 pounds per participant, which is not significant. However, of significance is the fact that this is a unique subgroup that is interested in a health lifestyle and has thus come in at probably a healthier level than the nonparticipants.

In looking at blood pressure changes, which are one of the higher risks for coronary artery disease and stroke, we found that there was a 7 percent change in both systolic and diastolic blood pressure with the program intervention of these people. Of interest is that, if you equate this change with what New York Telephone has found with their hypertension control program, they found a savings of $663,000 annually by reducing the blood pressure of their employees, which number approximately 80,000.

The blood lipid levels are extremely important in evaluating the risk of coronary artery disease. Of the group that we studied, we looked at 52 active cardiac patients with an average age of 64.9 years old. The total cholesterol change was 11 percent with this group through the intervention. Triglycerides changed 11 percent as well, and the total HDL cholesterol ratio changed 12 percent.

Basically, the change in this blood lipid level resulted from a risk identification of high risk to a risk identification of moderate risk through this intervention.

This should help result in some cost-savings efforts in the reduction of future cardiovascular events.

The last component of my presentation is that of the financial ramifications of a prevention program and what we can do in the future in presenting some information. Each member of this group of people has paid $227.00 each to be a member of this wellness center. This equated to $113,000 spent annually in their practice of preventive medicine.

If this same group of people has altered their lifestyle in a positive manner and thus stayed out of an acute care setting for one incidence of a noncomplicated acute myocardial infarction, this represents a savings of approximately $1.5 million. This would indicate that, for every dollar spent on preventive health care, there is a return of $13.88.

In summary, I would like to identify that this is a unique subgroup of people that we have studied. This subset of the population most likely believes in a healthy lifestyle as an intervention and means for maintaining good health. Of concern to me is the fact that there are those other groups of people who do not believe in a healthy lifestyle, and what are the financial ramifications in taking care of those individuals who do not take care of themselves in a preventative manner.

So, I would like to close with four questions to the panel that need to be answered as we address this issue. The first is: Does the practice of a healthy lifestyle reduce the use of Medicare dollars for this population? Second: If some third party carriers were to help pay for preventative health programs, would it motivate those who do not practice a healthy lifestyle?

What is the actual financial return for every dollar spent on preventative care? And lastly: Should health insurance premiums be set according to lifestyle of the individual?

If we in the health care industry can keep this population healthier, there will definitely be a reduction in the spending on coronary artery bypass surgery, hospitalization associated with pulmonary and metabolic disease, and certainly a reduction in the number and frequency of strokes in this country that presently are being financed primarily by the Medicare Program. Thank you.

[Applause.]

Senator **MITCHELL**. That is extremely interesting testimony, Mr. Meyers. Mr. Palevsky?

[The prepared written statement of Mr. Meyers follows:]

SENATE FINANCE COMMITTEE HEARING IN RISK-REDUCTION AND HEALTH PROMOTION FOR OLDER PEOPLE

JANUARY 6, 1988

The data for this testimony comes from The Wellness Center at Lee Memorial Hospital, Fort Myers, Florida. The Wellness Center is a program of multidisciplinary intervention of exercise, education, therapy and counseling toward the prevention and rehabilitation of various types of chronic disease processes commonly encountered by Southwest Florida residents. The Center opened in 1984 to serve the community in the area of:

1. Cardiovascular Rehabilitation
2. Pulmonary Rehabilitation
3. Adult Fitness
4. Physical Therapy
5. Health Promotion

Since the opening in 1984, 5,736 people have used the Center for one of the above services.

Specifically this risk identification testimony focuses on those participants over the age of 60 years that have used the services of the Center. The following survey identifies the participant at the time of entrance into the program. The number of participants in the sub-group is 502.

AGE: 66.5 YEARS OF AGE

SEX:	**MEN** 46.4% (233)	**WOMEN** 53.6% (239)
EDUCATION:	33.5% High School or below	66.5% College or above
HOSPITAL DAYS/YR:	74% up to 1/day	26% > 1 day/year

Blood Lipids:

Cholesterol:	70% >200 Mg% (Moderate Risk)
HDL Cholesterol:	62% < 44 Mg% (Moderate Risk) 38% > 44 Mg%
Total Chol/HDL-Chol Risk Ratio:	46.3% > 6.0 (High Risk)
Triglycerides:	48% > 150 Mg% (Medium High Risk)

Smoking:

10% presently smoke
46% stopped smoking
34% never smoked

Body Weight: 30% are 20% above ideal weight.

Percent Body Fat:	**MEN**	**WOMEN**
	26.5% (ideal 16-18%)	34.0% (ideal 24%)

Attitude Toward Wellness:

1. 69% have a high interest in wellness.
2. 30% have a growing interest in wellness.
3. 64% believe that health is primarily determined by lifestyle.
4. 68% are willing to change lifestyle to obtain better health.
5. 77% keep health insurance claims to a minimum.
6. 35% believe that a health insurance refund would be helpful in having more people participate in wellness.
7. 36% believe that health insurance refunds would not be helpful in having more people participate in wellness.

HEALTH PROMOTION FOR OLDER ADULTS

To evaluate the effectiveness of the program on older adults, 82 present members over the age of 60 were studied retrospectively. The function of this was to evaluate the physiological changes that take place in these people. Tests were performed at the entrance to the program and between 3 - 9 months after Test I. Demographics of this group are:

Average Age: 67.2 years old.
Sex: 35% Male, 65% Female
Medical Status: 86% were referred by a physician.
70% were taking a physician prescribed medication.
57% had a history of coronary artery disease.
26% had a history of orthopedic or metabolic problems (diabetes, obesity).
17% were classified as healthy.

Weight Change:

The average weight for the group at entrance was 164.1 pounds. At the second test the weight was 162 pounds. The average weight loss of two pounds per participant is not significant. However, further analysis showed that the males were more obese than the females and tended to lose more weight.

Blood Presure Changes:

Blood pressure at rest was taken on all clients at the time of their test. Results of the blood pressure measurements were:

TEST I	TEST II	% CHANGE
135/82	126/76	7%

The change in blood pressure is not extreme. However several studies have shown that the greater the amount of hypertension, the more change likely to take place with lifestyle assessment. The entrance blood pressure of 135/82 would be considered a normotensive reading.

Resting Heart Rate Changes:

Resting heartrate was taken on all clients at the time they were to begin their exercise stress test. Results indicated:

TEST I	TEST II	% CHANGE
75 BPM	72 BPM	4%

This change would not be considered significant. However, a resting heartrate of 75 BPM is very good for this age group.

Blood Lipid Levels:

Blood lipids were only drawn on those patients who had a physician prescription for such. This was a sub-group of 52 active cardiac patients at an average age of 64.9 years.

Blood Cholesterol, triglycerides and HDL cholesterol levels were measured. Results of testing between Test I and Test II within a three month frame show:

	TEST I	TEST II	% CHANGE
Total Cholesterol	229.3 mg%	205.9 mg%	11%
Total Triglyceride	221.55 mg %	184.25 mg%	11%
HDL Cholestrol	37.43	38.2	2%
Total Cholesterol/HDL	6.13	5.39	12%

Average cholesterol for this population was 215 mg%. The change associated with the cardiovascular rehabilitation intervention is favorable and shows a reduced risk for a cardiovascular event. Thus, this population through the intervention, shows a potential cost savings to society by reducing the risk of another cardiovascular event.

Triglycerides are often affected the most through exercise. Triglycerides values of 160 or greater are considered to be elevated, at levels of 200 or more the person is at high risk. As shown with this group, the triglycerides levels were abnormally high. Intervention through diet, exercise therapy and education reduced the risk of future cardiovascular events.

HDL Cholesterol is considered to be protective against coronary heart disease. As such, the higher the HDL, the lower the risk of cardiovascular incident. Little change in HDL cholesterol was observed with the cardiovascular rehabilitation intervention, however these values were not abnormally low from the first test, thus there is not as much change.

Financial Ramifications,
Those over the age of 60, as studied by this facility, have an interest in obtaining and maintaining a healthy lifestyle. Each member of this group of people has paid $227 per year to participate in the Wellness Center. This equates to $113,954 spent annually in their practice of preventive medicine. If this same group of people have altered their lifestyle in a positive manner and thus stayed out of the acute care hospital setting for one incident such as a non-complicated acute myocardial infarction the gross savings represents approximately $1,581,300. This would indicate that for every dollar spent on preventive care, there is a savings of $13.88 in direct hospital costs.

As well, the better educated clients are more likely not to use emergency room departments when angina or shortness of breath occur because they are more aware of the proper course for the prevention of emergencies and medical intervention. The need and use of hypertension medicine may be reduced. Also, physician office visits should occur less frequently as patients takes better care of themselves.

SUMMARY

After seeing well over 5,000 people at this center, it becomes clear that this population believes that proper lifestyle will result in increased longevity and decreased morbidity. Because of this belief these participants spend money to obtain the evaluation and intervention techniques used by this facility. Although the data presented indicates that many people over the age of 60 are at risk for the development of cardiovascular disease, pulmonary disease or metabolic disease, it must be acknowledged that this is a unique sub-set. This sub-set of the population most likely believes in lifestyle intervention as a means of maintaining good health. Of concern are those individuals that are not as motivated as this sub-group. One might identify that non-motivated people over the age of 60 are more likely to make use of acute care medicine and thus require more of the Medicare dollar due to their lack of belief in a healthy lifestyle. This leads to many questions that we need to answer as we evaluate the cost effectiveness of preventive medicine as an intervention to help cure the rising cost of healthcare for the older adult.

1. Does the practice of a healthy lifestyle reduce the use of Medicare dollars for this population?

2. If some third party carriers were to help pay for preventive health programs, would it motivate those who do not practice a healthy lifestyle?

3. What is the actual financial return for every dollar spent on preventive care?

4. Should health insurance premiums be set according to the lifestyle of the individual?

These and other questions will need to be answered as we evaluate programs for the older adult. The data on younger populations is very favorable. This has resulted in many corporations spending large amounts of money on Wellness Programs in order to reduce their total spending in health care dollars. More important than longevity is the question of morbidity. Older Americans are expected to live longer. If we in the healthcare industry can keep this population healthier there will definitely be a reduction in spending on coronary bypass surgery, hospitalization associated with pulmonary and metabolic disease and certainly a reduction in the number and frequency of strokes in this country that presently are being financed primarily by the Medicare program.

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                    L I F E   C O R P O R A T E   R E P O R T

                              WELLNESS CENTER

DEMOGRAPHIC SUMMARY                                                  12-22-19
                                                                     Page -

                                                        Percent Distribution
  AGE SPREAD                        (n)      (%)     0---10---20---30---40---50---60
     (-) to 19                       0        0.0    |>   |    |    |    |    |    |
     20 to 39                        0        0.0    |>   |    |    |    |    |    |
     40 to 59                        0        0.0    |>   |    |    |    |    |    |
     60 to (+)                     502      100.0    |******************************
                                                     |----|----|----|----|----|----|
     Average Age                    66.5
                                                        Percent Distribution
  SEX RATIO                         (n)      (%)     0---10---20---30---40---50---60
     Number of men                 233       46.4    |***********************   |    |
     Number of women               269       53.6    |***************************  |
                                                     |----|----|----|----|----|----|
     Total number of people        502.0
                                                        Percent Distribution
  EDUCATION LEVEL                   (n)      (%)     0---10---20---30---40---50---60
     No response                     8        1.6    |>   |    |    |    |    |    |
     Grade school                   22        4.4    |*>  |    |    |    |    |    |
     High school                   138       27.5    |*************>|    |    |    |
     Some college/trade sch.       186       37.1    |******************> |    |    |
     College graduate               84       16.7    |*******> |    |    |    |    |
     Masters                        46        9.2    |****>    |    |    |    |    |
     Doctorate                      18        3.6    |*>  |    |    |    |    |    |
                                                     |----|----|----|----|----|----|

                                                        Percent Distribution
  DAYS LOST/YR FROM SICKNES         (n)      (%)     0---10---20---30---40---50---60
     No response                    90       17.9    |********>|    |    |    |    |
     None lost                     321       63.9    |******************************
     1 TO 2 days                    28        5.6    |**> |    |    |    |    |    |
     3 to 4 Days                    15        3.0    |>   |    |    |    |    |    |
     5 to 7 days                    13        2.6    |>   |    |    |    |    |    |
     8 to 10 days                    5        1.0    |>   |    |    |    |    |    |
     11 (+) days                    30        6.0    |**> |    |    |    |    |    |
                                                     |----|----|----|----|----|----|

                                                        Percent Distribution
  NO. OF HOSPITAL DAYS/YR           (n)      (%)     0---10---20---30---40---50---60
     No response                    22        4.4    |*>  |    |    |    |    |    |
     None                          361       71.9    |******************************
     1 day                          10        2.0    |>   |    |    |    |    |    |
     2 to 3 Days                    20        4.0    |*>  |    |    |    |    |    |
     4 to 5 days                    20        4.0    |*>  |    |    |    |    |    |
     6 (+) days                     69       13.7    |******>  |    |    |    |    |
                                                     |----|----|----|----|----|----|
                                                                 12-22-19[illegible]
HEART HEALTH SUMMARY                                             Page - 2

                                                 Percent Distribution
 HEART HEALTH SCORE           (n)      (%)   0---10---20---30---40---50---60
   Very low (v. poor risk)    28       5.6   |**)  |    |    |    |    |    |
   Low (poor risk)            97      19.3   |**********)    |    |    |    |
   Average (fair risk)       311      62.0   |*******************************
   Good (good risk)           66      13.1   |******)   |    |    |    |    |
   Excellent (very good)       0       0.0   |)    |    |    |    |    |    |
                                             |----|----|----|----|----|----|

   Avg. heart health score    45.5
   Recommend score of 60+

                                                 Percent Distribution
 CHOLESTEROL LEVEL            (n)      (%)   0---10---20---30---40---50---60
   More than 260 mg%          11       2.2   |)    |    |    |    |    |    |
   229 to 260 mg%             17       3.4   |*)   |    |    |    |    |    |
   201 to 230 mg%             28       5.6   |**)  |    |    |    |    |    |
   171 to 200 mg%             17       3.4   |*)   |    |    |    |    |    |
   170 mg% or less             8       1.6   |)    |    |    |    |    |    |
                                             |----|----|----|----|----|----|

   Avg. cholesterol level    221.0
   Recommend 180 or less

                                                 Percent Distribution
 HDL CHOLESTEROL LEVEL        (n)      (%)   0---10---20---30---40---50---60
   Less than 35 mg%           23       4.6   |*)   |    |    |    |    |    |
   35 to 43.9 mg%             19       3.8   |*)   |    |    |    |    |    |
   44 to 53.9 mg%             18       3.6   |*)   |    |    |    |    |    |
   54 to 64.9 mg%              6       1.2   |)    |    |    |    |    |    |
   65 mg% or more              2       0.4   |)    |    |    |    |    |    |
                                             |----|----|----|----|----|----|

   Avg. HDL Chol. level       40.3
   Recom. 45+ Men, 55+ Women

                                                 Percent Distribution
 T-CHOL/HDL-C RISK RATIO      (n)      (%)   0---10---20---30---40---50---60
   Less than 3.5               7      10.4   |****)    |    |    |    |    |
   3.5 to 3.9                  2       3.0   |)   |    |    |    |    |    |
   4.0 to 4.9                 16      23.9   |***********)   |    |    |    |
   5.0 to 5.9                 11      16.4   |*******) |     |    |    |    |
   6.0 TO 6.9                 12      17.9   |********)|     |    |    |    |
   7.0 OR MORE                19      28.4   |*************)|     |    |    |
                                             |----|----|----|----|----|----|

   Average risk ratio          5.9
   Recommend 4.0 or less

                                                 Percent Distribution
 SYSTOLIC BLOOD PRESSURE      (n)      (%)   0---10---20---30---40---50---60
   Less than 120             118      23.6   |***********)   |    |    |    |
   120 to 139                222      44.4   |*********************)   |    |
   140 to 159                124      24.8   |***********)   |    |    |    |
   160 or more                36       7.2   |***)|     |    |    |    |    |
                                             |----|----|----|----|----|----|

   Average Systolic BP       130.5
   Recommend less than 140
```

```
HEART HEALTH SUMMARY                                                      12-22-1987
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                                                             Percent Distribution
 DIASTOLIC BLOOD PRESSURE         (n)       (%)   0---10---20---30---40---50---60
   Less than 80                   214       42.8  |*********************)   |    |
   80 to 89                       204       40.8  |********************)    |    |
   90 to 94                        63       12.6  |******)   |    |    |    |    |
   95 or more                      19        3.8  |*>   |    |    |    |    |    |
                                                  |----|----|----|----|----|----|
   Average Diastolic BP            79.0
   Recommend less than 90

                                                             Percent Distribution
 TRIGLYCERIDE LEVELS              (n)       (%)   0---10---20---30---40---50---60
   Less than 100 mg%               14       17.9  |*********)|    |    |    |    |
   100 to 149 mg%                  27       34.6  |*****************)  |    |    |
   150 to 199 mg%                  17       21.8  |***********)   |    |    |    |
   200 mg% or more                 20       25.6  |*************) |    |    |    |
                                                  |----|----|----|----|----|----|
   Average Triglycerides mg       184.8
   Recommend less than 120

                                                             Percent Distribution
 GLUCOSE LEVELS                   (n)       (%)   0---10---20---30---40---50---60
   Less than 115 mg%               51       70.8  |******************************
   115 MG% or more                 21       29.2  |**************)     |    |    |
                                                  |----|----|----|----|----|----|
   Average Glucose level          109.2
   Recommend less than 115

                                                             Percent Distribution
 SMOKING STATUS                   (n)       (%)   0---10---20---30---40---50---60
   Status unknown                  50       10.0  |*****)    |    |    |    |    |
   Never smoked regularly         168       33.5  |*****************)   |    |    |
   Stopped smoking                233       46.4  |***********************)  |    |
   Smoke one pack per day          32        6.4  |**) |    |    |    |    |    |
   Smoke two packs/day             11        2.2  |>   |    |    |    |    |    |
   Smoke pipe or cigar              7        1.4  |>   |    |    |    |    |    |
   Smoke 3+ packs/day               1        0.2  |>   |    |    |    |    |    |
                                                  |----|----|----|----|----|----|
   Percent smokers in group        10.2

                                                             Percent Distribution
 RESTING HEART RATE               (n)       (%)   0---10---20---30---40---50---60
   Less than 60                    47        9.4  |****)    |    |    |    |    |
   60 to 69                       135       27.1  |*************)|    |    |    |
   70 to 79                       157       31.8  |****************)    |    |    |
   80 to 89                       106       21.3  |***********)   |    |    |    |
   90 or more                      53       10.6  |*****)    |    |    |    |    |
                                                  |----|----|----|----|----|----|
   Average resting HR              73.8
   Recommend 60 or less
```

```
FITNESS SUMMARY                                                  [illegible]-1987
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                                                   Percent Distribution
 FITNESS SCORE                 (n)      (%)   0---10---20---30---40---50---60
   V.Low 0 to 19                30       6.0  :**> :    :    :    :    :
   Low  20 to 39               106      21.1  :**********>    :    :    :
   Avg. 40 to 59               240      47.8  :***********************
   Good 60 TO 79               116      23.1  :***********>   :    :    :
   Excel 80 TO 100              10       2.0  :>   :    :    :    :    :
                                              :----:----:----:----:----:----

   Average fitness score       48.1
   Recommend score of 60+

                                                   Percent Distribution
 PHYSICAL ACTIVITY STATUS      (n)      (%)   0---10---20---30---40---50---60
   Not reported                 41       9.2  :***>:    :    :    :
   No exercise program         300      59.8  :*****************************
   1 to 2 times/week            44       8.8  :***>:    :    :    :    :
   3 to 4 times/week            66      13.1  :******>  :    :    :
   5 to 6 times/week            28       5.6  :**> :    :    :    :
   Daily                        23       4.6  :*>  :    :    :    :
                                              :----:----:----:----:----:----

   Percent exercising           25.4
                                                   Percent Distribution
 EXERCISE CALORIES/WEEK        (n)      (%)   0---10---20---30---40---50---60
   No exercise program         238      47.4  :***********************
   Up to 1000 cal/week          88      17.5  :********>:    :
   1000 to 1999 cal/week        83      16.5  :*******> :    :
   2000 to 2999 cal/week        41       8.2  :***>:    :    :    :
   3000 or more                 52      10.4  :****>    :    :    :
                                              :----:----:----:----:----:----

   Average exer. cal/week     1985.6
   Recommend 1000+ cal/wk

                                                   Percent Distribution
 AEROBIC POWER (MVO-2)         (n)      (%)   0---10---20---30---40---50---60
   Less than 30                309      69.9  :**********************************
   30 to 39.9                   91      20.5  :**********     :
   40 to 49.9                   29       6.6  :**> :    :    :
   50 to 59.9                    6       1.4  :>   :    :    :
   60 plus                       7       1.6  :>   :    :    :
                                              :----:----:----:----:----:----

   Average MVO-2 (ml/kg/min     27.7

                                                   Percent Distribution
 PERCENT BODY FAT (MEN)        (n)      (%)   0---10---20---30---40---50---60
   10% or less                  13       5.6  :**> :    :    :    :
   10.1 to 15%                  11       4.7  :*>  :    :    :    :
   15.1 to 20%                  38      16.3  :*******:    :
   20.1 to 25%                  71      30.5  :***************
   More than 25%               100      42.9  :*********************
                                              :----:----:----:----:----:

   Average % fat for men        26.5
   Recommend 16% or less
```

```
FITNESS SUMMARY                                                      12-22-1987
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                                                  Percent Distribution
PERCENT BODY FAT (WOMEN)       (n)       (%)   0---10---20---30---40---50---60
  18% or less                    5       1.9   :>   :    :    :    :    :    :
  18.1 to 22%                    5       1.9   :>   :    :    :    :    :    :
  22.1 to 27%                   18       6.9   :**> :    :    :    :    :    :
  27.1 to 32%                   49      18.8   :*********>:   :    :    :    :
  More than 32%                184      70.5   :******************************
                                               :----:----:----:----:----:----

  Average % fat for Women     56.1
  Recommend 24% or less

                                                  Percent Distribution
GRIP STRENGTH (KG)             (n)       (%)   0---10---20---30---40---50---60
  Less than 50                  92      35.4   :*****************> :    :    :
  50 to 74.9                   105      40.4   :********************    :    :
  75 to 99.9                    49      18.8   :*********>:    :    :    :    :
  100 to 124.9                  11       4.2   :*>  :    :    :    :    :    :
  125 or more                    3       1.2   :>   :    :    :    :    :    :
                                               :----:----:----:----:----:----

  Average grip (kg)           63.3

                                                  Percent Distribution
ABDOMINAL STRENGTH,SITUPS      (n)       (%)   0---10---20---30---40---50---60
  Less than 10                  73      33.2   :****************> :    :    :
  10 to 19                      92      41.8   :********************     :    :
  20 to 29                      34      15.5   :*******> :    :    :    :    :
  30 to 39                      18       8.2   :***>:    :    :    :    :    :
  40 to 49                       2       0.9   :>   :    :    :    :    :    :
  50 or more                     1       0.5   :>   :    :    :    :    :    :
                                               :----:----:----:----:----:----

  Average no. situps/min      14.7

                                                  Percent Distribution
SPINE FLEXION (IN.)            (n)       (%)   0---10---20---30---40---50---60
  Less than 5                   19       4.1   :*>  :    :    :    :    :    :
  5 to 9.9                      60      13.1   :******>  :    :    :    :    :
  10 to 14.9                   188      41.0   :********************     :    :
  15 to 19.9                   160      34.9   :*****************> :    :    :
  20 or more                    31       6.8   :**> :    :    :    :    :    :
                                               :----:----:----:----:----:----

  Average spine flexion       13.5

                                                  Percent Distribution
RELATIVE WT(100% = IDEAL)      (n)       (%)   0---10---20---30---40---50---60
  Less than 100 %               31       6.2   :**> :    :    :    :    :    :
  100 to 109%                  188      37.5   :******************>:    :    :
  110 to 119%                  133      26.5   :*************> :    :    :    :
  120% or more                 150      29.9   :**************>     :    :    :
                                               :----:----:----:----:----:----

  Average Relative Wt        114.7
  Recommend less than 110%
  Wt/Ideal Wt X 100 = Rel. Wt.
```

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                                                                    12-22-1987
STRESS                                                              Page - 5

                                                   Percent Distribution
 STRESS SCORES                        (n)       (%)   0---10---20---30---40---50---60
    Severe distress                    3        0.6   ¦>   ¦    ¦    ¦    ¦    ¦    ¦
    Significant distress               7        1.4   ¦>   ¦    ¦    ¦    ¦    ¦    ¦
    Distress zone                     49        9.8   ¦****>    ¦    ¦    ¦    ¦    ¦
    Stress zone                       86       17.1   ¦*********>¦   ¦         ¦
    Marginal zone                     41        8.2   ¦***>¦    ¦    ¦    ¦    ¦    ¦
    Low positive                      58       11.6   ¦*****>   ¦    ¦    ¦    ¦    ¦
    Positive well-being              258       51.4   ¦*************************   ¦
                                                      ¦----¦----¦----¦----¦----¦----.

    Average stress score             78.1
    Recommend score of 81+

                                                   Percent Distribution
 HOURS OF SLEEP/DAY                   (n)       (%)   0---10---20---30---40---50---60
    No response                       18        3.6   ¦*>  ¦    ¦    ¦    ¦    ¦    ¦
    More than 8                       72       14.3   ¦******>  ¦    ¦    ¦    ¦    ¦
    7 to 8                           259       51.6   ¦*************************   ¦
    6 to 6.9                         104       20.7   ¦**********>   ¦    ¦    ¦    ¦
    5 to 5.9                          41        8.2   ¦***>¦    ¦    ¦    ¦    ¦    ¦
    less than 5                        8        1.6   ¦>   ¦    ¦    ¦    ¦    ¦    ¦
                                                      ¦----¦----¦----¦----¦----¦----¦

    Recommend 7-8 hrs
                                                   Percent Distribution
 WORK LIFE                            (n)       (%)   0---10---20---30---40---50---60
    No response                      189       37.6   ¦******************>¦    ¦    ¦
    It's great                        84       16.7   ¦*******> ¦    ¦    ¦    ¦    ¦
    Good, enjoy my work              192       38.2   ¦******************>¦    ¦    ¦
    OK but often hard                 22        4.4   ¦*>  ¦    ¦    ¦    ¦    ¦    ¦
    A taxing necessity                14        2.8   ¦>   ¦    ¦    ¦    ¦    ¦    ¦
    Dread each day                     1        0.2   ¦>   ¦    ¦    ¦    ¦    ¦    ¦
                                                      ¦----¦----¦----¦----¦----¦----¦


                                                   Percent Distribution
 ANNUAL VACATIONS                     (n)       (%)   0---10---20---30---40---50---60
    No response                       26        5.2   ¦**> ¦    ¦    ¦    ¦    ¦    ¦
    Not regularly                     86       17.1   ¦*********>¦   ¦    ¦    ¦
    Occasionally                      95       18.9   ¦*********>¦   ¦    ¦    ¦    ¦
    Regularly                        295       58.8   ¦*****************************>¦
                                                      ¦----¦----¦----¦----¦----¦----¦


                                                   Percent Distribution
 FUN ACTIVITIES WEEKLY                (n)       (%)   0---10---20---30---40---50---60
    No response                       18        3.6   ¦*>  ¦    ¦    ¦    ¦    ¦    ¦
    No, not regularly                 61       12.2   ¦*****>   ¦    ¦    ¦    ¦    ¦
    Occasionally                     138       27.5   ¦*************>¦    ¦    ¦    ¦
    Yes, regularly                   285       56.8   ¦****************************> ¦
                                                      ¦----¦----¦----¦----¦----¦----.
```

```
NUTRITION SUMMARY                                                        12-22-1987
                                                                          Page - 2

                                                          Percent Distribution
 NUTRITION SCORE                    (n)       (%)   0---10---20---30---40---50---60
   Very low    0 to 19              25        5.0   :*>  :    :    :    :    :    :
   Low        20 to 39              17        3.4   :*>  :    :    :    :    :    :
   Average    40 to 59             239       47.6   :***********************>:    :
   Good       60 to 79             205       40.8   :********************>   :    :
   Excellent  80 to 100             16        3.2   :*>  :    :    :    :    :    :
                                                    :----:----:----:----:----:----:

   Average nutrition score          55.8
   Recommend score of 60+

                                                          Percent Distribution
 FAT - % OF TOTAL CAL               (n)       (%)   0---10---20---30---40---50---60
   Less than 20%                    26        5.2   :**> :    :    :    :    :    :
   20 to 29.9%                     152       30.3   :***************>   :    :    :
   30 to 39.9%                     265       52.8   :**************************>  :
   40% or more                      59       11.8   :*****>   :    :    :    :    :
                                                    :----:----:----:----:----:----:

   Aver. % of cal. from fat         33.4
   Recommend less than 30%

                                                          Percent Distribution
 SAT. FAT - % OF CAL                (n)       (%)   0---10---20---30---40---50---60
   Less than 5%                     15        3.0   :>   :    :    :    :    :    :
   5  to  9.9%                     114       22.7   :***********>   :    :    :    :
   10 to 14.9%                     326       64.9   :******************************:
   15 to 19.9%                      44        8.8   :***>:    :    :    :    :    :
   20% or more                       3        0.6   :>   :    :    :    :    :    :
                                                    :----:----:----:----:----:----:

   Average percent                  11.8
   Recommend less than 10%

                                                          Percent Distribution
 CARBOHYDRATE - % OF CAL            (n)       (%)   0---10---20---30---40---50---60
   Less than 40%                   127       25.3   :************> :    :    :    :
   40 to 54.9                      316       62.9   :******************************:
   55 to 69.9                       54       10.8   :****>    :    :    :    :    :
   70% or more                       5        1.0   :>   :    :    :    :    :    :
                                                    :----:----:----:----:----:----:

   Average percent                  45.5
   Recommend 55% or more

                                                          Percent Distribution
 SUGAR - TEASPOONS/DAY              (n)       (%)   0---10---20---30---40---50---60
   Less than 3                      78       15.5   :*******> :    :    :    :    :
   4  to 9                         169       33.7   :****************>  :    :    :
   10 to 14                        101       20.1   :**********>   :    :    :    :
   15 or more                      154       30.7   :***************>   :    :    :
                                                    :----:----:----:----:----:----:

   Average t. sugar/day             13.6
   Recommend less than 10/day
```

```
NUTRITION SUMMARY                                                      [illegible]
                                                                       Page - [illegible]

                                                       Percent Distribution
 FIBER (GM)                        (n)       (%)   0---10---20---30---40---50---60
   Less than 8                     140      27.9   :*************):    :    :    :
   8  to 11.9                      190      37.8   :******************):    :    :
   12 to 15.9                       79      15.7   :*******) :    :    :    :    :
   16 or more                       93      18.5   :********):    :    :    :    :
                                                   :----:----:----:----:----:----:

   Average fiber intake            12.6
   Recommend 12+ gm/day

                                                       Percent Distribution
 DIETARY CHOLESTEROL (MG)          (n)       (%)   0---10---20---30---40---50---60
   Less than 100                    25       5.0   :*)  :    :    :    :    :    :
   100 to 239                      192      38.2   :******************):    :    :
   300 to 499                      174      34.7   :*****************) :    :    :
   500 or more                     111      22.1   :***********)  :    :    :    :
                                                   :----:----:----:----:----:----:

   Average chol. intake           403.4
   Rec. Men <300, Women <250

                                                       Percent Distribution
 REFINED CAL. - % OF TOTAL         (n)       (%)   0---10---20---30---40---50---60
   Less than 10                     97      19.3   :*********)    :    :    :    :
   10 to 19.9                      136      27.1   :*************):    :    :    :
   20 to 29.9                      116      23.1   :***********)  :    :    :    :
   30 to 39.9                       94      18.7   :********):    :    :    :    :
   40 or more                       59      11.8   :*****)   :    :    :    :    :
                                                   :----:----:----:----:----:----:

   Average Refined Cal.            23.0
   Recommend less than 20%

                                                       Percent Distribution
 EAT BREAKFAST...                  (n)       (%)   0---10---20---30---40---50---60
   No response                      11       2.2   :)   :    :    :    :    :    :
   Nearly every day                336      66.9   :*******************************
   Occasionally                     86      17.1   :********):    :    :    :    :
   Seldom eat breakfast             69      13.7   :******)  :    :    :    :    :
                                                   :----:----:----:----:----:----:


                                                       Percent Distribution
 SNACK BETWEEN MEALS...            (n)       (%)   0---10---20---30---40---50---60
   No response                      16       3.2   :*)  :    :    :    :    :    :
   Nearly every day                105      20.9   :**********)   :    :    :    :
   Occasionally                    232      46.2   :***********************):    :
   Seldom eat snacks               149      29.7   :**************)    :    :    :
                                                   :----:----:----:----:----:----:


                                                       Percent Distribution
 USE OF WHOLE GRAINS...            (n)       (%)   0---10---20---30---40---50---60
   No response                      17       3.4   :*)  :    :    :    :    :    :
   Mostly refined grains            73      14.5   :*******) :    :    :    :    :
   Some whole grains               117      23.3   :***********)  :    :    :    :
   Mostly or all wh grains         295      58.8   :*****************************)
                                                   :----:----:----:----:----:----:
```

```
SAFETY SUMMARY                                                          12-22-19[illegible]
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                                                          Percent Distribution
 SAFETY SCORE (0-50)              (n)        (%)   0---10---20---30---40---50---60
   Very low                         0        0.0   :)   :    :    :
   Low                              6        1.2   :)   :    :    :
   Average                         80       15.9   :*******)    :    :    :
   Good                           212       42.2   :********************
   Excellent                      204       40.6   :*******************
                                                   :----:----:----:----:----:----

   Average safety score           36.6
   Recommend score of 40+

                                                          Percent Distribution
 SEATBELT USAGE                   (n)        (%)   0---10---20---30---40---50---60
   No response                     19        3.8   :*)  :    :    :    :
   Seldom ever wear S.B.           78       15.5   :*******)    :    :    :
   Occasionally                    72       14.3   :******)     :    :    :
   Most of the time               103       20.5   :*********)       :    :
   All of the time                230       45.8   :*********************
                                                   :----:----:----:----:----:----


                                                          Percent Distribution
 DRINKING AND DRIVING             (n)        (%)   0---10---20---30---40---50---60
   No response                     87       17.3   :********):    :    :    :
   Even after many drinks           8        1.6   :)   :    :    :    :    :
   After a few drinks              50       10.0   :****)    :    :    :    :    :
   Rarely                         105       20.9   :*********)    :    :    :    :
   Never drink and drive          154       30.7   :**************)    :    :    :
   Never drink                     98       19.5   :*********)    :    :    :    :
                                                   :----:----:----:----:----:----


                                                          Percent Distribution
 NO. ALCOHOLIC DRINKS/WK          (n)        (%)   0---10---20---30---40---50---60
   No response                    148       29.5   :**************)    :    :    :
   None                            96       19.1   :*********)    :    :    :    :
    1 to  4                       133       26.5   :************)  :    :    :    :
    5 TO  9                        69       13.7   :******)   :    :    :    :    :
   10 TO 19                        34        6.8   :**) :    :    :    :    :    :
   20 TO 29                        16        3.2   :*)  :    :    :    :    :
   30 or more                       6        1.2   :)   :    :    :    :    :    :
                                                   :----:----:----:----:----:----:

   Average drinks/wk               7.3
   Recommend less than 6/wk
```

```
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CANCER RISK SUMMARY                                               Page - 10

                                                     Percent Distribution
 SELF BREAST EXAM               (n)       (%)   0---10---20---30---40---50---60
   No response                  103      38.3   |******************)|    :    :
   Practices SBE monthly        137      50.9   |************************)|   .
   Does not practice SBE         29      10.8   |****)    :    :    :    :    :
                                                |----|----|----|----|----|----|
   Recommend monthly SBE

                                                     Percent Distribution
 GET REGULAR PAP SMEAR          (n)       (%)   0---10---20---30---40---50---60
   No response                   19       7.1   |***)|    :    :    :    :    :
   Yes, annually                112      41.6   |********************)   :    :
   Yes, every 2 yrs              55      20.4   |*********)    :    :    :    :
   No, not regularly             23       8.6   |***)|    :    :    :    :    .
   No, uterus removed            60      22.3   |**********)   :    :    .    .
                                                |----|----|----|----|----,----.
   Recommend every 2 years
```

```
WELLNESS ATTITUDE SUMMARY                                                12-[illegible]
                                                                          Page - 11

 ATTITUDE TOWARDS WELLNESS      (n)      (%)   Percent Distribution
   Low interest (0-41)           12      2.4   0---10---20---30---40---50---6
   Growing interest (42-55      146     29.1   :>   :    :    :    :    :
   High interest (56-61)        344     68.5   :**************)    :    :
                                               :*****************************
   Aver well. Attit. score       58.1          :----:----:----:----:----:----
   Recommend score of 56+

 HEALTHFUL LIFESTYLE IS...      (n)      (%)   Percent Distribution
   Drab & uninteresting          22      4.4   0---10---20---30---40---50---6
   Not sure                     190     37.8   :*>  :    :    :    :    :
   Fun and rewarding            290     57.8   :*****************>:    :
                                               :*****************************
   Average score (3-15)          11.7          :----:----:----:----:----:----
   Ideal score 15

 HLTH PRIM. DETERM. BY...       (n)      (%)   Percent Distribution
   Heredity/medical care         11      2.2   0---10---20---30---40---50---6
   Not sure                     173     34.5   :>   :    :    :    :    :
   Choice of lifestyle          318     63.3   :****************>  :
                                               :*****************************
   Average score (3-15)          12.3          :----:----:----:----:----:----
   Ideal score 15

 WILLINGNESS TO CHANGE...       (n)      (%)   Percent Distribution
   Not very likely               11      2.2   0---10---20---30---40---50---6
   Not sure                     152     30.3   :>   :    :    :    :    :
   Very likely                  339     67.5   :**************)    :
                                               :*****************************
   Average score (3-15)          12.4          :----:----:----:----:----:----
   Ideal score 15

 EMPLOYER'S HEALTH CONCERN      (n)      (%)   Percent Distribution
   Not very concerned            28      5.6   0---10---20---30---40---50---6
   Not sure                     135     26.9   :**> :    :    :    :    :
   Very concerned               339     67.5   :************) :    :    :
                                               :*****************************
   Average score (2-10)          9.1           :----:----:----:----:----:----
   Recommend score of 8+

 HOW I USE HL INSURANCE         (n)      (%)   Percent Distribution
   Get all claims I can          51     10.2   0---10---20---30---40---50---6
   No opinion                    65     12.9   :****>    :    :    :    :
   Keep claims to minimum       386     76.9   :*****>   :    :    :
                                               :*****************************
   Average score (1-5)           4.2           :----:----:----:----:----:----
   Ideal score 5
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WELLNESS ATTITUDE SUMMARY                                                              12-22-1987
                                                                                       Page - 12

                                                            Percent Distribution
 III INSUR. COST CONTAIN.          (n)        (%)   0---10---20---30---40---50---60
   Ill insur refund helpful        176        35.1  :*****************)  :
   No opinion                      146        29.1  :**************)     :    :
   Ill insur refund no help        180        35.9  :*****************)  :    :
                                                    :----:----:----:----:----:----:
   Average score (1-5)              2.8
   Ideal score 5



HEALTH PRACTICES SUMMARY


                                                            Percent Distribution
 HEALTH PRACTICES SCORE            (n)        (%)   0---10---20---30---40---50---60
   Zero                              0         0.0  :)   :    :    :    :    :    :
   One                               2         0.4  :)   :    :    :    :    :    :
   Two                              29         5.8  :**) :    :    :    :    :    :
   Three                            80        15.9  :*******) :    :    :    :    :
   Four                            148        29.5  :**************)    :    :    :
   Five                            142        28.3  :**************):   :    :    :
   Six                              85        16.9  :********) :    :    :    :    :
   Seven                            16         3.2  :*)  :    :    :    :    :    :
                                                    :----:----:----:----:----.----:
   Average score                    4.4
   Recommend score of 6+

   Average person yrs lost          3.6
   Total person yrs lost         1802.7

   Based on the 7 Good Health
   Practices and Longevity Study.
   Health practices score is the
   number of good health practices
   currently being followed.


                                                            Percent Distribution
 OVERALL WELLNESS SCORE            (n)        (%)   0---10---20---30---40---50---60
   Very low (0-19)                  28         5.6  :**) :    :    :    :    :    :
   Low (20-39)                       2         0.4  :)   :    :    :    :    :    :
   Average (40-59)                 217        43.2  :*********************)   :    :
   Good (60-79)                    250        49.8  :************************)     :
   Excellent (80-100)                5         1.0  :)   :    :    :    :    :    :
                                                    :----:----:----:----:---- ----:
   Average wellness score          57.3
   Recommend score of 60+
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CAL-ARF
CALIFORNIA ASSOCIATION OF REHABILITATION FACILITIES
HOTEL SENATOR BUILDING • 1121 L STREET • SUITE 410 • SACRAMENTO, CALIFORNIA 95814 • 916 441-5844

A Study of Coronary Artery Bypass Patients Comparing Those Who Have Received Cardiac Rehabilitation Services to Those Who Have Not.

The California Association of Rehabilitation Facilities (Cal-ARF) conducted a study of coronary artery bypass patients in 1987. 10 hospitals statewide participated in collecting data on patients who had undergone coronary artery bypass surgery in 1985. Medical charts of patients were reviewed through cardiology practices in the geographic area of each hospital. Information was collected on a number of variables for a 12 month post surgery period, noted on data collection forms and submitted to the Cal-ARF office for compilation and analysis.

All patients included in the study met the following criteria:

1) had coronary artery bypass surgery in 1985
2) were under 65 years of age at time of surgery
3) were non-smokers (at least since time of surgery)
4) were not diabetic
5) were not self-pay (i.e., all covered under some insurance program, public or private)

The control group of 65 patients met all of the above criteria. The average age of the control group patients was 54.8 years. 84.6% of patients in this group were covered by private insurance, 9.2% by Medicare, 4.6% by Medi-Cal and 1.6% by worker's compensation.

The cardiac rehab study group of 80 patients met all of the above criteria and participated in an outpatient cardiac rehabilitation program. The average age of the cardiac rehab study group patient was 54.9 years. 88.75% of patients in this group were covered by private insurance, 11.25% were covered by Medicare and there were no Medi-Cal patients since this is currently not a covered benefit.

The following is a comparison of the control group and the cardiac rehab study group on the variables tested.

1. **CORONARY RELATED EMERGENCY ROOM VISITS IN 12 MONTH POST SURGERY PERIOD.**

   The control group had significantly more ($p<.025$) emergency room visits than the cardiac rehab. study group.

   12 out of 65 patients or 20% of the control group used hospital emergency room services (3 of the 12 went more than once).

9 out of 80 patients or 11% of the cardiac rehab study group used hospital emergency room services (none of the 9 went more than once).

2. **CORONARY RELATED REHOSPITALIZATIONS IN 12 MONTH POST SURGERY PERIOD.**

The control group had significantly more (p<.025) rehospitalizations than the cardiac rehab study group.

15 out of 65 patients or 23% of the control group required rehospitalization.

8 out of 80 patients or 10% of the cardiac rehab study group required rehospitalization.

3. **OFFICE VISITS TO A CARDIOLOGIST IN 12 MONTH POST SURGERY PERIOD.**

The control group had significantly more (p<.005) office visits than the cardiac rehab. study group.

Patients in the control group averaged 5.25 visits to their cardiologist in the 12 month post surgery period.

Patients in the cardiac rehab study group averaged 3.95 visits to their cardiologist in the 12 month post surgery period.

4. **NUMBER OF DIAGNOSTIC PROCEDURES IN 12 MONTH SURGERY PERIOD.**

This is one area where there was little variation between the control group and the cardiac rehab study group.

Patients in the control group averaged 1.6 procedures and patients in the cardiac rehab study group averaged 1.8 procedures.

5. **USE OF CORONARY RELATED MEDICATIONS AT 2 MONTHS POST SURGERY AND 12 MONTHS POST SURGERY.***

AVE. # MEDS AT 2 MOS. POST-CARDIAC SURGERY

	Control	Study
	# (%)	# (%)
3 or fewer	22 (33.8%)	55 (69%)
3 or more	43 (66.2%)	22 (27%)

The control group was taking significantly more (p<.001) medications at 2 months post cardiac surgery than the cardiac rehab study group.

(*may not add up to 100% due to several no responses)

AVERAGE # MEDS AT 12 MOS. POST-CARDIAC SURGERY

	Control	Study
	# (%)	# (%)
3 or fewer	28 (43%)	65 (81%)
3 or more	33 (51%)	12 (15%)

Again, the control group was taking significantly more (p<.001) medications at 12 month post cardiac surgery than the cardiac rehab study group.

In summary, this study points to reduced utilization of other medical services by patients who have participated in outpatient cardiac rehabilitation programs. These findings are consistent with nationwide literature substantiating the benefits of cardiac rehabilitation services.

Currently, outpatient cardiac rehabilitation services are covered by Medicare and most major private insurers. The Medi-Cal program does not offer this service to medically eligible beneficiaries. This study provides hard California data to support the cost benefits of these services to the Medi-Cal program. A more detailed fiscal accounting will be forthcoming.

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OTE: The results of this study were analyzed using "Simple Stat" software package for spread sheets (1987 Copyright, B.R. Forer, Ph.D.).

Cal-ARF Completes Study of Cardiac Rehabilitation

Last year, Governor George Deukmejian vetoed legislation which would have added outpatient cardiac rehabilitation services to the list of Medi-Cal benefits. Currently, Medicare and most major private insurers cover outpatient cardiac rehabilitation for patients who meet specified criteria. Cal-ARF is pursuing this legislation again in the form of AB 349, authored by John Vasconcellos (D-San Jose).

Assemblyman John Vasconcellos

The Deukmejian Administration is again opposed to this measure. They are not convinced that cardiac rehabilitation services are cost effective. In meetings with the Administration, DHS challenged Cal-ARF to show hard data supporting the cost benefit of outpatient cardiac rehabilitation.

In response to this challenge, Cal-ARF surveyed 15 facilities statewide to compare individuals who have received cardiac rehabilitation (study group) with those who have not (control group). There were a total of 80 patients in the study group and 65 in the control group.

All patients in the study: 1) underwent coronary artery bypass surgery during 1985; 2) were under 65 years of age at the time of surgery; 3) were nonsmokers, at least since surgery; and 4) were nondiabetic. The study group differed from the control group by completing a cardiac rehabilitation program as defined under Medicare guidelines.

The focus of the study was to compare the differences between the two groups in a 12 month postsurgical period in a number of areas, including 1) the number of coronary related emergency room visits; 2) the number of coronary related hospitalizations; 3) the number of phone calls and office visits to the cardiologist; 4) the number of coronary diagnostic procedures; and 5) the use of coronary related medications over a 12 month period.

The data are currently being analyzed. Once analysis is completed, a report will be prepared. P liminary findings are extremely promissing. In alm every category, the patients who have not recei cardiac rehabilitation services are heavier users other medical services. For example, the data sho

- Patients in the control group were almost th times more likely to seek emergency room ass tance than patients in the cardiac rehab study gro
- Patients in the control group were at least t times more likely to require re-hospitalization t patients in the cardiac rehab study group.
- Patients in the control group made more pho calls and office visits to their cardiologist than t cardiac rehab study group.
- Patients in the control group showed a sign cantly greater reliance on coronary related medic tions than patients in the cardiac rehab study gro At 12 months post surgery, 81 percent of the card rehab study group took less than three coron related medications. In contrast, only 43 percent the control group took less than three coron related medications. This is perhaps the most sign cant finding.

The preliminary findings appear to substantiate t premise that cardiac rehabilitation services are c effective. Hopefully, this data will prove useful seeking the passage of AB 349, which would requ Medi-Cal coverage of cardiac rehabilitation.

STATEMENT OF ELLIOTT PALEVSKY, M.A., EXECUTIVE DIRECTOR, RIVER GARDEN HEBREW HOME, JACKSONVILLE, FL

Mr. PALEVSKY. Thank you, Senators, for the opportunity to appear before you and enjoy the crucial discussion.

My testimony is really based upon observation of twenty years in geriatric programming, the last ten of which have been at the River Garden Hebrew Home in Jacksonville, FL, in long-term care at a rehab center.

Also, thanks to a former Governor's appointment, to say that we wait too long to make available reasonable support and assistance in helping to cope with the problems that arise in old age is no revelation, it has been spoken about. Medicare and Medicaid Programs originally intended to assure access to acute medical care for the elderly and poor, but they have become the only universal gate place into a disjointed care system for the aged.

Medicare provides coverage for physicians, hospitals, and limited rehab care. Medicaid provides long-term care services for the poor and, more importantly, for the middle class, once their limited private means have been exhausted.

Yet the key to all these services, to opening the door to this disjointed system, is a medical crisis or a functional crisis in the daily life world that it has become so severe that it requires medical response. Once this access has been achieved via this crisis—if I may a costly crisis—a host of all kinds of other services might become available but only as ancillary elements responding to the driving medical problem. By this time, the individual in relation to his or her life world may have become so compromised that no realistic return is likely.

The informal care and support system which provides upwards of 70 percent of all long-term care services in this country, at no reimbursement, but that informal support system may have been taxed and broken beyond the point of reconstitution. Because programs of support and assist tend to focus on the individual's needs and the individual's assets, they also inadvertently distance that individual from the very informal care support system which might be sustaining.

With some bolstering, that informal support system might still have been able to sustain, rather than wait for the medical crisis. We need to model a system of overlay services responding as the simple problems arise, without the need for medical presentation, allowing people to age in place with social connectedness, whether they are living alone or with spouse or with children or in a retirement residence.

We need to stop thinking about shifting people into boxes where they need a particular kind of service or a particular kind of prosthetic support. We need to look at a coordinated range of overlay services. For some folks, finance is not a problem. It is the availability of a rational range of services. For other folks, finances are a problem, and one can think about a model which funnels Medicare and Medicaid funds on top of what their means are, not asking them to divest themselves, as those needs arise.

At River Garden, that is exactly how we provide the long-term care and short-term care. We don't follow the logic of disjointed programs; we put all sources of funds into one funnel. We then allocate it out based upon the needs of the clients, whether they are privately paying or whether they are publicly sponsored and subsidized by the community.

The River Garden Home is also right now at the beginning point of modeling this kind of overlay system for the development of a campus with radiating services out to the community. It will contain the long-term care çenter, the health center, an Alzheimer's center, a short-term rehab center, housing for aging in place—meaning services as you need—but not court-assisted living, and outpatient services or family care support services, either on a self-managed basis or on a case-managed basis.

One of the things we are proud of is that we are going to again be combining service to the middle class and well-to-do, at the same time as we will be serving the economically disadvantaged and disenfranchised population, both at the same level, by not following the logics of disjointed program reversement systems, but by using the funnel effect and allocating out rationally over a range of needs.

I think it is an interesting model to look to, and I think that that kind of coordinated range are the things that were spoken about the first panel.

Now, even under Medicare, part A, there are some programs now that would cause the rehabilitation of older people. River Garden serves approximately 250 rehabilitation clients a year presently, some 85 percent of whom return to their former mode of living, after a length of stay of less than one month. This, however, appears to be the exception.

Our programs are staffed by a full rehab team, OT, speech, PT; we have our own medical staff. We look for people with good rehab potential and a support system so that they may benefit from this unique program, and it is offered in a very separate part by a separate logic of our agency.

Most post-hospital skilled nursing care is given by proprietary long-term care providers where the operating imperative is to keep beds filled. Relatively rapid turnover and discharge serve this purpose. Conversion to long-term care is often the path of least resistance on the part of all involved, and it also serves the financial interests of the average provider. The outcome appears to be normal, given the present sensibilities of our society.

This 85-year-old person has suffered a stroke, has become incapacitated, and now must spend the rest of his or her life in long-term care. It need not necessarily be so.

Most providers rendering services under Medicare A do not have the in-house rehab capacity, in addition to which, under cost containment, they are pressed by the fiscal intermediaries for the utilization review process such that, in order to provide the person with the right kinds of support and assist, one has to spend hours justifying the rehab stay.

Unless we are willing to invest in that kind of nonproductive time in order to save a person, the path of least resistance is to say forget it, and let the person convert into long-term care. Even if that rehab has been successful and we are about to discharge a person to home, we are discharging them with a ventilator. Medicare might pay $150 a day, $55,000 a year for the use of the ventilator; but if they need a knife and fork adoptive eating device so they can eat without assistance, or a buttoning device so that they can dress themselves, or a back-scrubbing device so that they can bathe themselves—all those things in total may cost $25—there is no reimbursement available for that.

I am sorry to say that, with some folks, that $25 is impossible after a significant hospitalization and rehab stay.

And so, for want of that, we compromise the possibility of continued wellness. My friends at ZNA tell me the same thing is true in home health care. You can build a wheelchair rack, but you can't get a doorknob to work for an arthritic hand; and that again makes the situation untenable.

I think we need to rethink the entire system so that it is not disjointed, so that it doesn't do what our tax system used to do and probably still does, which is, yes, do unproductive things based upon reimbursement implications. We need to look towards what the first panel spoke of.

While we are doing that, we need to eliminate these anomalies in the system that we presently have, so that those things that can work do work. You know, there is the old refrain:

> For want of a nail, a shoe was lost; for want of a shoe, a horse was lost; for want of a horse, a rider was lost; for want of a rider, a battle was lost; for want of a battle, a war was lost; for want of a war, a kingdom was lost.

And that is what we are really facing here.

For us, the fiscal kingdom is budgetary manageability. The social kingdom is a humane, decent society. And the personal kingdom is what value do we place on an individual?

Unless we can rationalize the thing based upon our most basic human values, we are never going to solve the problem on human terms, and we are never going to solve the problem on fiscal terms. Thank you.

[Applause.]

Senator MITCHELL. Thank you.

[The prepared statement of Mr. Palevsky follows:]

TESTIMONY BEFORE SENATE FINANCE COMMITTEE HEARING ON HEALTH PROMOTION FOR OLDER PEOPLE

Thank you for the opportunity to appear before you and join this crucial discussion.

I presently serve as the Executive Director of the River Garden Hebrew Home for the Aged in Jacksonville, Florida, a private, philanthropic, long-term care and rehabilitation agency accredited by the Joint Commission on Accreditation of Hospitals and sponsored by the organized Jewish community of Jacksonville. My observations are based upon twenty years of involvement in geriatric programs, the last nine of which have been at River Garden.

To say that we wait too long to make available reasonable support and assists in helping cope with the problems that arise in old age is no great revelation. The Medicare and Medicaid programs, while initially intended to assure access to medical care for the elderly and poor, have become the only universal gateways into a disjointed care system for the aged. Medicare provides coverage for physicians, hospitals, and limited rehabilitation services. Medicaid provides long-term care services for the poor and the middle class, once limited private means have been exhausted.

The key opening the door to this disjointed system is a medical crisis or a functional crisis in the daily life world which has become so severe that it requires medical response. Once access has been achieved via this crisis, a host of other services might become available, but only as ancillary elements responding to the driving medical problem. By this time, the individual in relation to his or her life-world may have become so compromised that no realistic return is likely. The informal care and support system (which provides upwards of seventy per cent of all long-term care services) may have been taxed and broken beyond the point of reconstitution. Because programs of support and assist tend to focus on the individual's needs and assets, they also inadvertently distance that individual from the informal care system which might, with some bolstering, have the capacity to sustain.

Rather than wait for the medical crisis, we need to model a system of overlay services responding as the simple problems arise, allowing people to age in place, whether they are living alone with their spouses, children, or in retirement residencies. We also need to view the aged person in the context of the informal care system as the "client unit." For some the combination of assets available within the informal support system would be sufficient to meet needs were a coordinated range of overlay services available. We need to stimulate the establishment of such a range with rational access. For others there will come a point of financial insufficiency in the face of needs. An appropriate response mechanism could be a combination of Medicare and Medicaid funds to supplement private means on a sliding scale or matching basis over a coordinated range of services through a social HMO model.

Under Medicare Part A there is a program which is intended to give the older person the opportunity to receive skilled rehabilitative care after hospitalization for trauma, heart problems, strokes, fractures, and the like. The goal of care is discharge to the community. However, even here program mechanisms thwart program purposes.

River Garden serves approximately 250 rehabilitation clients a year, some 85% of whom return to their former mode of living after a length of stay of less than one month. This, however, appears to be the exception. Our programs are staffed by a full rehab team and our goal is discharge. We look for people with good rehab potential and a support system so that they may benefit from this unique program. It is offered in a separate portion of our facility and is guided by a distinct operating and care philosophy.

Most post-hospital skilled nursing care is given by proprietary long-term care providers where the operating imperative is to keep beds filled. Relatively rapid turnover and discharge can subvert this purpose. Conversion into long-term care is often the path of least resistance on the part of all involved and also serves the financial interests of the average provider. The outcome appears to be normal, given the present sensibilities of our society. This 85-year-old person has suffered a stroke, has become incapacitated, and now must spend the rest of his or her days receiving long-term care. It need not necessarily be so.

Most providers rendering service under Medicare A do not have in-house rehabilitation and medical staff so that the rehab component is essentially plugged into the long-term care program by a non-coordinated set of outside providers. This, too, mitigates against successful rehabilitation.

For some with true rehabilitation potential, there is pressure by the fiscal intermediaries to discharge as soon as possible through the utilization review process. Yet in the geriatric care client, progress is often slow, with intermediate plateaus of stasis. For those who are "discharged" into long term care, the absence of Medicare coverage may have only financial implications. For those prematurely discharged home, the denial of such coverage may result in a person who is doomed to failure. At River Garden we do battle with the fiscal intermediaries on behalf of such clients. After a tortuous process we often prevail. In the meantime, we are financially exposed and much precious time and energy is expended. The path of least resistance would be to discharge prematurely.

For some without complimentary coverage, the $67.50 co-pay after the 20th day of Medicare coverage in the skilled nursing facility is beyond their means. Thus, the conversion to long-term care under Medicaid becomes the path of least financial resistance.

Even in instances of full rehabilitation, program gaps often thwart successful reintegration into non-institutional living. Medicare will pay upwards of $150 per day or, let's say, $55,000 per year for rental of an in-home ventilator. Yet it will not pay a one-time cost of $10 for an adaptive eating device which would obviate the need for feeding assist or a $5 device to assist with self-bathing, or a $3 device to help self-dress. I am sorry to say that, in our land, there are many for whom the 100 or 50 or 25 dollars for such adaptive devices is a burden too great to bear after a lengthy medical crisis. These devices are not there, the informal care system breaks, and the person is forced to call upon institutional care. My friends and colleagues at the Visiting Nurse Association describe similar situations in home care. They can get funds for a wheelchair ramp; they can get funds for sophisticated medical equipment within the home, but not for doorknobs usable by a severe arthritic.

Our entire system, or non-system, of services to the aged requires some fundamental re-thinking and reconstitution. In the meantime, as we are engaged in this process, we can try to rationalize those parts of our system which might be made to work effectively with some minor adjustments.

We are all familiar with the oft-quoted refrain:

> For want of a nail a shoe was lost;
> For want of a shoe a horse was lost;
> For want of a horse a rider was lost;
> For want of a rider a battle was lost;
> For want of a battle a war was lost;
> For want of a war a kingdom was lost.

In our case, the fiscal kingdom is a manageable budget. The social kingdom is our claim to being a decent and humane society. The individual kingdom is the intrinsic value of a human being. Let's fashion the nails and not lose the kingdoms.

Senator MITCHELL. Senator Graham.

Senator GRAHAM. Elliott, if I could pursue your very excellent statement, from your experience you have underscored the fact that we tend to respond to an incentive structure—and especially an economic incentive structure. What recommendations would you make for changes in Federal Medicare or other policies that would move us away from this disjointed system that you have described and lead it towards a more holostic approach?

Mr. PALEVSKY. I would certainly look to try to establish a model of budgeting, such as in social HMO programs, which allow for a whole host of nonclinical services to be put into place before there is a medical crisis. I would look towards providing incentives for developers because we are a private entrepreneurial society to put service centers next to senior citizen housing where a host of services could be available.

I would look to providing tax benefits to those kinds of developers who coordinate with the ability to provide services, both the nonclinical and the clinical.

I would look towards providing an incentive for those rehab facilities that really do their job and baffle the—and get folks back into the community, and then look for a way of providing some aftercare so that the thing doesn't fall apart in the first critical 2 or 3 weeks.

As was said before, we do it—those of us who care. Nobody pays for it, and we are in the minority. If we are going to do this as a national model, we have got to provide those kinds of incentives.

More importantly, it is not such a crazy thing to do, Senators. If someone were to sit down, the way someone sits down with the Old and New Testaments—a testament for us to codify into the codex—if someone were to sit down with all the programs that we pitch on wellness and senior services and looked at what was possible and looked at the other parts, and looked at where the continuities worked, and tried to create a more seamless system so the left hand was not hiding the right hand—let alone not knowing what it was doing—then one could begin to approach a rationalization of present programs, while we are rethinking the whole situation.

Could I add just a little thing, based upon what you were saying about FPL? You know, in the Scandinavian countries, they have postman checking on wellness. They also have postmen delivering groceries to people who are isolates and shutins. We tend not to think about what network systems are out there that we can add onto along this continuum. That is another thing we need to stimulate.

Senator MITCHELL. Thank you very much.

Senator GRAHAM. I would like to ask Ms. Macaulay a question. FP&L, in addition to its services for its customers, also is a very major employer. Have you had any experience within your own employee group in terms of what programs help to prepare people for their senior years and what steps a person who is approaching retirement can be encouraged to take in order to enhance their chances of having this quality, healthy life after retirement?

Ms. MACAULAY. Yes, Senator. Preretirement is a critical issue in business. It is very important, and it should start early. We just moved ours back to age 55, and I would like to think that in the future it will be a much younger age.

When it starts at age 60, it is too late. They have already had their savings in place and their plans are pretty well set. There should be some preretirement, in my opinion, in all companies. As the person starts to approach, they need to be prepared for the changes that will take place in their lives. Housing—they need to be informed about Social Security; what to expect, what not to expect. Preretirement is important.

Presently, we have a 2-day preretirement program that includes a spouse and the employee and is done off company property so they are removed and not interrupted with the telephones, et cetera. They can really devote some time to it.

The second is after retirement. What we found, going back a few years, was that we retired our employees; and every month, they received their check, and that was about it

That wasn't really sufficient. They were losing contact with their old friends. They had spent a lifetime with some of these people, and they needed to have that contact. So, we initiated what we call Retirement Clubs or chapters. We have six now in Florida, and we have one in North Carolina because so many of our retirees have retired to North Carolina

And this provides the kind of friendship, comeraderie that is necessary. Loneliness is a terrible, terrible problem among the elderly. It must be combatted; and at least one way of doing it—is putting you in touch and keeping you in touch with your old friends and colleagues.

Senator **GRAHAM**. I might say, Mr. Chairman, I had one of my workdays last year at the Lee Memorial Hospital at The Wellness Center. It was an excellent and very insightful look at what a marriage of a medical center, which is committed to maintenance of health, can mean in the quality of life of those who benefit from it.

Senator **MITCHELL**. May I ask Mr. Meyers: How did the Wellness Center do after his day there? [Laughter.]

Senator **GRAHAM**. The kind of quantifiable information that you provided, I think, is the type of information that the chairman was indicating is going to be a critical part of this debate. Have you attempted to do any longitudinal studies that might indicate taking comparable population groups and what might be their health experience if there were no intervention? And then, what would be their experience with various options, so that we might be able to project and present some data as to what the consequences are of continuing the status quo and what would be the potentials of adopting some of these more assertive and positive policies?

Mr. **MEYERS**. I think that that is our next step as we evaluate the questions that I mentioned. We are in a relatively infant stage in this wellness model which I presented, and we need to do some long-term tracking for years. We are attempting to do that now, and we will be expending some efforts towards that.

The concern in this type of study is the crossover that occurs, and this is the same problem that occurred with the national exercise and heart disease project that was done a number of years ago where people who weren't exercising began to exercise, and people who were exercising stopped exercising, and as well with the health promotion and the smoking cessation. And you have a crossover from one group to the other; and therefore, when you treat it statistically, it is difficult to identify a specific group that has not crossed over. That doesn't mean it can't be done.

Our goal now is to identify those people who have been in the program for 2 years, as our first step; compare them to those people who either are not in a program or do not practice a healthy lifestyle.

And I think the second and most important component of this is to identify those people who adhere to a program because, as most of are aware, to engage in a lifestyle modification requires commitment. It requires time commitment and financial commitment, and adherence is what is going to determine whether or not physiological changes take place and thus the potential savings of money towards acute care medicine.

So, there is a very complex question that needs to be answered, but I feel that those of us in the health care industry need to address that as we work together with you as policy-makers to try and come to an understanding.

Senator **Mitchell**. Thank you, Senator Graham. I appreciate all your testimony. Mr. Meyers, I was very much interested in your testimony, and I noticed in reviewing material in preparation for this hearing that you have written a good deal. You are the author of numerous articles. I would like to ask you to submit any others which bear on this point. Then, I would like to ask you to restate the four questions which you very concisely and, I think, in excellent summary fashion presented? And then if you would take a crack at answering them briefly?

Mr. **Meyers**. The questions are always easier than the answers.

Senator **Mitchell**. Yes, that is right.

Mr. **Meyers**. If we look at the first question: Does the practice of a healthy lifestyle reduce the use of Medicare dollars for this population? The best way that I can answer that is that if we look at what employers have done—and I mentioned New York Telephone and several others—if we equate Medicare to the employer, and we equate the Medicare recipient to the employee, we have found in the employment situation that there is a savings in health care dollars. And I brought this book along, and I would like to give it to you to review because it has all the references in it on this issue.

Senator **Mitchell**. Is the rest of my visit to Florida now to be taken up with this? [Laughter.]

Mr. **Meyers**. If you have insomnia. [Laughter.]

But what we are looking at here is: What is the actual cost savings? And the way to do that is to look at the claims, as I mentioned earlier. So, that is a very challenging question, and it will probably take 2 to 3—maybe 10—years to answer that question in a dollars and cents standpoint that can be treated statistically.

The second question is: If some third party carriers were to help pay for preventative health programs, would it motivate those who do not practice a healthy lifestyle? I would guess from reviewing this data that these people—35 percent—felt that it would not. They felt that wellness and preventative care are a self-responsibility; and I think we need to look at that. What is the self-responsibility for the American public, and what is a responsibility for us to supply some financial aid or intervention?

So, that is depending upon the lifestyle of these people and their philosophy of health. If we attempt to intervene earlier in life, I feel that we can have a value system where people feel that it is important enough to make the commitment, both financially and timewise.

The third question: What is the actual financial return for every dollar spent on preventative care? I attempted to look at that from a hypothesis standpoint; and if we look at what we reduce in Medicare spending for acute hospitalization, we can then answer that question. Another example is that a 1-day stay in a coronary care unit is approximately 2½ times a 1-year membership at one of these types of facilities; but again, we have to look at that, that the membership means they have to participate to make the changes that are needed to be made.

And finally: Should health insurance premiums be set according to the lifestyle of the individual? Several life insurance companies have looked at this and have instituted it for smokers and nonsmokers, exercisers and nonexercisers, etcetera. The biggest challenge in this question is to identify those that adhere to a program and those that don't.

There are some companies that will pay employees a certain amount of money if they stop smoking; however, they would have to test them every 2 weeks for nicotine levels to make sure that they are not smoking. So, we have a trust question that needs to be addressed there.

These four questions, I would hope, are some of the future directions that need to be addressed.

Senator **Mitchell**. They are really very well put, and I thank you for your answers. And I thank you very much, Ms. Macaulay and Mr. Palevsky for your testimony.

We will now hear from the final panel, which will include Dr. Gary Lyman, Chief of Medical Services, Director of Medical Oncology at the H. Lee Monifit Cancer Center at the University of South Florida in Tampa; Dr. Jack Kassan, Medical Director of the Broward County MediVan in Fort Lauderdale; and Sally Kanter-Bruin, Palm Beach County Health Task Force at St. Mary's Hospital, Mammovan Project in West Palm Beach.

Senator **Graham**. Mr. Chairman, before we start, I would like to take this opportunity to introduce a group of high school students who are visiting us today, a Social Science Class from Miami Beach Senior High School. I would ask if you would please stand and be recognized?

[Applause.]

Senator **Mitchell**. Welcome. Dr. Lyman.

STATEMENT OF GARY LYMAN, M.D., M.P.H., CHIEF OF MEDICAL SERVICES, DIRECTOR OF MEDICAL ONCOLOGY, H. LEE MONIFIT CANCER CENTER, UNIVERSITY OF SOUTH FLORIDA, TAMPA, FL

Dr. **Lyman**. Senators Mitchell and Graham, I appreciate this opportunity to address the issue of risk reduction in the elderly, and I will specifically attempt to address the cost effectiveness of breast cancer screening in the elderly.

I have submitted to the subcommittee a fairly technical document, including some work conducted at the University of South Florida, on this issue. My comments here will address the key issues and the conclusions that we have come to based on this work.

I would first address the problem of breast cancer, which is the leading cause of cancer in women in this country, accounting for some 27 percent of all cancers, nearly 130,000 cases per year. The incidence of breast cancer or its recognition has increased about 10 percent over the past decade, and this disease kills about 40,000 women in this country each year.

Age is a major risk factor for cancer, as I am sure you are aware; and in fact, in the State of Florida, it has been estimated that, by the turn of the century, there will be some 50,000 new cancers in individuals aged 65 and older each year. For breast cancer, this population, which account for about 15 percent of the population, breast cancer in that population accounts for about 50 percent of all breast cancers. And in fact, increasing age is the single most important risk factor for breast cancer in women in this country.

Overall, the incidence for breast cancer is about 95 per 100,000, but this increases to well over 300 per 100,000 in the over 65 age group. What the actual prevalence of the disease at any given time is in the population is more difficult to estimate but based on recent scientific data, it is estimated that at preclinical phase of the disease, where it is detectable on screening but not clinically evident—a period of about 2 to 4 years—suggests that the prevalence is approximately two to three times the annual incidence of the disease.

So, it is a major health care problem, particularly among the elderly. The survival of breast cancer of five years is currently about 75 percent, but approximately one-half of women diagnosed under conventional conditions will eventually die of their disease. The recent progress that has occurred in the treatment of cancer has largely been confined to the under-50 age group; and in fact, cancer mortality rates have increased over the last three decades among those 65 and over especially in Blacks.

The most important prognostic factor for survival in breast cancer in the elderly is the stage of the disease at presentation. This is a summary measure of the size of the breast tumor, the involvement of the lymph nodes in the area of the breast, and whether or not there is any local extension or distant metastasis. This may range from what we call minimal lesions, where it is very small and contained in the breast—a disease that is usually not detectable clinically, but it can be detected by screening programs—and the survival of those patients approaches 100 percent.

At the other extreme is disease that is widely metastatic or locally invasive at presentation, and the survival of that group is extremely poor. In the 60 to 80 percent that fall in between those extremes, the involvement of the lymph nodes seems to be the key factor, if there is no lymph node involvement, the prognosis is significantly better. The survival in breast cancer patients seems to fall with increasing age of diagnosis.

In fact, the annual risk of dying of breast cancer is greatest in those over the age of 65 and may exceed 5 percent in those 75 and older. This appears to be related to two factors. One is that the disease appears to be more advanced at the time of presentation, or by the time it is diagnosed in the elderly; and at least in some institutions, older patients are treated less aggressively at diagnosis, independent of any other physiologic conditions.

Therefore, we have concluded, based on the observed natural history of the disease, the prognostic importance of stage at diagnosis, and the availability of effective treatments that early and accurate detection of disease is the best opportunity for improving breast cancer survival in the elderly today.

Routinely, outside of screening programs, about 90 percent of breast cancers are found by the patient herself; and approximately one-half of these will have either lymph node involvement or extensive disease at presentation.

Mammography, that is low-dose breast x-rays, represents the single most sensitive method for detecting breast cancer early before it has had a chance to spread. Approximately 80 percent of breast cancers detected in screened women are confined to the breast at diagnosis, including upwards of one-half with these minimal lesions associated with excellent prognosis.

We have specifically addressed the cost effectiveness issue of screening programs and addressed in particular the major issues that affect cost effectiveness of any screening program. These include the test performance characteristics, such as sensitivity and specificity; the effectiveness of the program usually measured in terms of survival or increase in life expectancy; and the cost, both monetarily and in terms of toxicity or potential risk from the program.

In terms of test performance, mammography has had a sensitivity ranging anywhere from about 70 percent to about 95 percent. Its specificity, likewise, has ranged from about 88 percent to about 99 percent, making it—as screening tests go—a relatively sensitive and specific measure.

Both of these measures, however, are greater among the elderly being screened due to physiologic and pathologic considerations. The cost effectiveness of mammography, however, is more closely related to a test performance characteristic known as predictive value; and this is the probability of having the disease if you have a positive test.

This relates to not only the sensitivity and specificity of the test, but the prevalence of the disease in the population itself. Since, as we have stated, the prevalence increases with increasing age and is greatest in those over 65, the predictive value of mammography is greatest in the elderly age group.

Second of all, we have addressed the effectiveness; and again, this generally relates to survival. There are now several randomized prospective studies, both in this country and in Europe, that have demonstrated between a 30 and 50 percent increase in 10-year survival—in breast cancer survival—in women undergoing screening compared to conventionally managed control groups.

The cost issue is a more difficult one to get at because we must consider the cost of the mammogram itself, which depends upon the cost of each procedure, its frequency, any potential risk associated with it, the cost of biopsying false positive reports, the cost of treating women with advanced disease at initial presentation, the cost of treating recurrent disease if all efforts fail; and it is in this context that we have generated a cost effectiveness model to try to deal with these issues, particularly in those aged 65 and over.

I would only mention that the risk based on latest scientific evidence from radiation exposure of the magnitude we are talking about here in this population is virtually nonexistent.

The introduction of the initial conditions which we used were very conservative for studying the application of breast cancer screening to the 65 and over U.S. female population. And yet, our model suggests that nearly 15,000 additional women would survive for 5 years after the diagnosis if they were participating in a screening program nationwide during the initial screening, and nearly that number on repeated screening.

This would be achieved, again, based on these very conservative cost estimates of about $40 per screenee; but this cost and cost effectiveness is very sensitive to the estimates that one utilizes in terms of the prevalence of the disease, specificity, and direct cost assumptions.

If we can increase the specificity of the test to 98 or 99 percent, which has been shown to be achievable, we can cut the cost per individual lives saved in half. The cost effectiveness actually reaches a break-even point with no net increase in cost achieved, despite the additional lives saved, at a prevalence of about 1.4 percent, which appears to be very close to more recent estimates of the prevalence of the disease in the elderly U.S. female population.

Costs could be further reduced by specific screening protocols, and both cost and accessibility could be further enhanced by measures such as mobile units, which I think will be addressed, and programs aimed at both patient and physician education. Therefore, at more reasonable actual values of prevalent specificity and direct cost, the break even point or even cost savings with large-scale mammography in the elderly is achievable.

The additional lives saved and the increase in life expectancy could be achieved with little or no net additional cost to the system; and even such models do not adjust for improvements in quality in life and the indirect costs of breast cancer, which would only further enhance the cost effectiveness estimates.

The only additional considerations that I would mention are that recent studies have indicated that only about 15 to 20 percent of American women over 50 have ever had a mammogram, and only about 16 percent of those 65 and older have ever had a mammogram. If you keep in mind that most mammograms are ordered for specific indications, the percentage of women over 65 in this country undergoing routine screening mammography is indeed very small.

The most frequently stated reason for not following current breast cancer screening guidelines for annual mammograms over the age of 50 is patient expense. We have also identified a problem, as have others, of poor compliance in following recommendations of the health care profession.

Recent data has revealed that about one-half of patients referred for mammograms refuse them, and this goes to only about eight percent of women who are asymptomatic and referred for routine screening mammography and have to pay for the procedure who will actually go and have the procedure done.

So, our conclusions are: No. 1, mammography saves lives, and this is clearly demonstrated. No. 2, mammography can be cost effectively applied to the population of women aged 65 and over in this country. And three, one of the major deterrents to large-scale use of mammography is the cost to the individual, many of whom are on fixed, limited incomes.

It is essential, therefore, in my opinion that economic barriers to effective breast cancer screening in those most severely affected—that is, the elderly—be removed.

Senator MITCHELL. Thank you very much, Dr. Lyman. Dr. Kassan.

[The prepared written statement of Dr. Lyman follows:]

TESTIMONY

Gary H. Lyman, M.D.,M.P.H.,F.A.C.P.,F.C.P.M.*

to the

Finance Committee

United States Senate

Miami, Florida

January 6, 1988

RISK-REDUCTION AND HEALTH PROMOTION FOR OLDER PEOPLE

The Cost-Effectiveness of Breast Cancer Screening

I welcome this opportunity to discuss the value of population screening for breast cancer among the elderly. I will specifically address the value of mammography in the screening of asymptomatic women and the potential value of wide-scale application of such technology to woman age 65 and over.

Breast cancer represents the leading cause of cancer among women in the United States accounting for some 27% of all newly diagnosed cases or approximately 130,000 cases annually. While breast cancer incidence rates appear to have increased some 10% between 1970 and 1980, the introduction of new diagnostic modalities makes these numbers difficult to interpret. Breast cancer mortality rates have remained remarkably stable over the past several decades. Nevertheless,approximately 40,000 women die each year in this country from breast cancer. While considerable progress has been made in the treatment of cancer over the past two decades, most of that progress has been evident in patients under the age of 50. Cancer death rates have actually increased in individuals age 65 and over particularly among blacks.

While breast cancer can occur at any age following menarche, the risk increases progressively with increasing age (table 1). In fact, increasing age represents the single leading risk factor for breast cancer in women. According to the 1980 US Census, some 13% of the female population in this country is age 65 or older. This group, however, accounts for nearly one-half of all patients with breast cancer. While the prevalence of breast cancer in the female population at any given time is uncertain, extensive analysis of screening studies has lead to an estimate of the mean duration of preclinical illness of 1.84 years (Zelen and Feinleib). Therefore, the prevalence of breast cancer in an unscreened population is nearly twice the annual incidence rate. However, this probably represents a conservative estimate of breast cancer prevalence in those 65 and over screened with new technology in experienced hands (approx 3 to 4 years)

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The five-year survival of all women with breast cancer is approximately 75%. Nearly one-half of these women will eventually die of their disease, however. Survival of patients with breast cancer is most directly associated with the stage of the disease at diagnosis. While surgery still is the mainstay of treatment for this disease, the type of surgery and use of other modalities such as radiation therapy, chemotherapy and hormonal therapy is influenced by the disease stage at presentation. The stage of the disease is a summary measure of risk based on the size and extent of invasion of the primary lesion, the status of the regional lymph nodes and the presence or absence of distant metastases. Several studies have demonstrated a strong association between the number of axillary lymph nodes involved with malignancy at diagnosis and subsequent mortality. The size of the primary tumor at diagnosis and the presence of direct extension or distant metastases, however, represent important independent prognostic factors (table 2) Patients with a small primary lesion and no evidence of disease spread have an excellent prognosis generally with surgery alone. The best prognosis is associated with true minimal lesions including in-situ and intraductal carcinomas and invasive lesions less than 1 cm in diameter. Since such small malignancies are generally not detectable clinically, they only are found with any frequency in mammographic screening programs. The available evidence suggests that with time such lesions will progress to fully invasive and life-threatening disease. Other prognostic factors include the histologic and nuclear grade, the presence and level of hormone receptors and certain associated tumor markers. Patients with regional spread may be candidates for systemic adjuvant therapy such as hormonal therapy in receptor positive tumors. Locally extensive disease may necessitate the use of radiation therapy as does earlier stage disease treated with breast-conserving surgical procedures such as lumpectomy. The presence of distant metastases is associated with a very poor survival. Patients may be effectively palliated for several months to a few years with systemic therapy and supportive care efforts but few survive five years.

Survival for women with breast cancer appears to decrease with increasing age. Among patients with breast cancer, the annual risk of dying from the disease is greatest in those over the age of 65 at diagnosis. The long-term annual mortality from breast cancer may exceed five percent in those age 75 and over (Adami et al). Based on data from the Surveillance, Epidemiology and End Results (SEER) experience, older women are less likely to have localized disease and more likely to have distant metastases at diagnosis (Sartariano et al). This difference in stage at presentation based on age is most apparent in black women and strong interaction is evident between age and race. It is also evident that, at least in some institutions, older breast cancer patients are treated less aggressively at the time of diagnosis. In one study, as many as one-third of women age 70 and older received treatment that would be considered inadequate by current standards including 17% of such patients with early stage disease (Greenfield et al). This age bias appears to be independent of any co-morbid conditions.

Based on the observed natural history of the disease, the strong association of stage with mortality, and the availability of relatively effective treatment modalities, early and accurate detection appears to offer the best opportunity for improving breast cancer survival. In fact, mammography appears to fulfill all of the usual criteria for a useful screening modality: a) Breast cancer is a common and frequently lethal and disabling disease, b) effective treatment approaches are available, c) treatment appears to be most effective when applied to patients with early stage disease, particular in asymptomatic women, d) mammography represents a relatively sensitive and specific (accurate) screen for early and preclinical breast canmcer and e) modern mammography is comparatively safe, simple and inexpensive.

Outside of a systematic screening program, 90% of breast cancers are detected by the patient herself when they achieve a readily palpable size (> 1 cm). Approximately one-half of patients under these circumstances have either regional lymph node involvement or extensive disease at the time of diagnosis. Mammography represents the single most sensitive method for detecting early breast cancer. Several studies have demonstrated that routine mammographic examination is capable of detecting early stage disease including a substantial proportion of preclinical (minimal) breast cancers associated with an excellent prognosis. Patients participating in breast cancer screening with mammography have disease localized to the breast in about 80% of cases. Approximately one-half of cancers detected in asymptomatic women with modern equipment are minimal lesions. Over 95% of cancers detected by mammography alone are localized to the breast. As noted above, it has been estimated that mammography is capable of detecting a breast cancer nearly two years before it becomes palpable. Using antiquated techniques, the Health Insurance Project (HIP) of Greater New York randomized 31,000 women age 40 to 64 to annual screening mammography for four consecutive years. A comparable control group continued to receive their usual medical supervision. Despite the low sensitivity due to poor quality images and the comparatively high radiation exposure compared to modern methods, those randomized to receive mammographic screening have experienced a breast cancer mortality at ten years approximately 30% below that of the control group. Following the encouraging results of the HIP study, nearly 280,000 American women were enrolled in the mid-1970s into the Breast Cancer Detection Demonstration Project (BCDDP). This large uncontrolled multicenter study identified 3548 breast cancers of which 893 (25%) were intraductal, in-situ or less than 1 cm in size. More than one-half of the breast cancers found were detectable by mammography alone. While an 80% relative ten year survival has been observed overall, the ten year survival in those whose cancers were detected by mammography alone has been 95%. Table 2 compares the stage-specific survival of the BCDDP experience with that of the SEER program. Recent results from two randomized Swedish studies demonstrated a 40% reduction in breast cancer mortality in women screened between 50 and 70 years of age ($p=.003$). In another recently reported case-control study of breast cancer screening in the Netherlands, screened women had a 30% reduction in expected breast cancer mortality. Among those diagnosed over the age of 65, the risk of dying of breast cancer was only 10% of that in unscreened women.

As discussed above, the value of any screening procedure such as mammography depends on many factors including test performance characteristics, the prevalence and nature of the disease, the effectiveness of treatment methods as well as the cost and risk of the screening procedure. The value of such tests also depends on their acceptability both among health professionals and the general population. The test performance of mammography has been assessed in several studies. Based on current technology, the sensitivity (true positive rate) of mammography in asymptomatic women has ranged from 66% to 94% while the specificity (true negative rate) has ranged from 88 to 99%. The sensitivity and specificity of mammography depend on the specific clinical circumstance and the diagnostic criteria utilized. Both the sensitivity and specificity of mammography appear to improve with increasing age of the screened population. This has been attributed to the density of breast tissue and the frequency of fibrocystic disease and benign lesions in younger women. The cost-effectiveness of a test such as screening mammography is most critically related to the measure of test performance known as the predictive value. The predictive value depends on the sensitivity and specificity of the test performed and on the prevalence of the disease in the population tested through a relationship known as Bayes theorem. The predictive value of a positive test (PV+) is the probability of the disease among those with a positive test result. The predictive value negative (PV-) is the probability of not having the disease among those with a negative test result. The PV+ increases as the prevalence of the disease in the population increases. Since the prevalence of breast cancer increases dramatically with age, the PV+ of screening mammography also increases with increasing age. In addition, since the sensitivity and specificity of mammography also appear to increase with age, the PV+ and PV- for those age 65 and over shown in table 1 are probably underestimates. As more experience has been gained, the specificity of screening mammography has probably approached 98 to 99% and the sensitivity may be as high as 80 to 90% with correspondingly high predictive values. However, since disease prevalence varies over a greater range, it has a greater influence on test performance than sensitivity or specificity. In fact, based on cell kinetic and clinical doubling time considerations, the prevalence of breast cancer in women age 65 and over may be greater than generally assumed. The direct costs of mammographic screening must be considered but depend on many factors including the cost of performing and interpreting the procedure, the type and cost of definitive diagnostic methods, the approach to and cost of primary and palliative care in patients with newly diagnosed and recurrent metastatic disease respectively, and any risk from the mammography itself. The cost of mammography varies from approximately $30. to more than $200. An actual cost in large institutions is generally around $50 although it has been suggested that with large-scale screening, lower unit costs are possible. The total cost also depends on the frequency of screening. In the Swedish experience, improved mortality was observed with screening every 2 or 3 years although the occurence of interval cancers increases as the period increases. Currently annual mammography is recommended in asymptomatic women over 50 in order to optimize the detection of minimal lesions. However, scanning every two years would not be unreasonable except in those with additional risk factors. This would reduce procedure cost by one-half.

Radiation exposure to the breast has been substantially reduced with the introduction of new radiographic technologies. Midplane breast exposure ranges from between 0.4 rem to less than 0.2 rem depending on the method utilized. Risk estimates based on extrapolation from high-dose exposure situations suggest an annual breast risk following a latency period of at least 10 years of 3 to 8 cases per 1 million women exposed to 1 rad midplane dose or approximately one case per year per million women screened compared to the annual breast cancer incidence of nearly 900 per million American woman. The lifetime risk from annual mammography would not exceeed 0.001% compared to the background lifetime breast cancer risk of approximately 7%. Most of this small risk is in those exposed under the age of 50 while the risk in those age 65 and over is virtually nonexistant.

We have studied the cost-effectiveness of mammographic screening in women age 65 and greater based on data from the SEER and BCDDP programs (table 3). The decision model is baased on a comparison of results observed in both screened and unscreened individuals. The prevalence of disease during an initial screen is based on SEER incidence data and the assumed average duration of preclinical disease of 1.84 years. For initial calculations, the sensitivity of screening mammography is assumed to be 0.75 and the specificity to be 0.90. As discussed above, these prevalence and test performance assumptions are conservative for an elderly population. The frequency of specific stages and the five year survival estimates are based on SEER and BCDDP data. The average life expectancy is based on life table estimates from the 1980 Census of the US population. Mortality rates were assumed to be additive based on an exponential survival distribution. Initial cost estimates included the following: mammography ($50.), breast biopsy ($200.), adjuvant hormone therapy ($2500.), management of extensive diseasee ($10,000.), and management of recurrence/terminal care ($20,000.). Again, these cost estimates are generally conservative and will vary with circumstances, location and time. The cost of primary care is ignored since it will not vary between groups based on an absence of an assumed indication for systemic chemotherapy and radiation therapy in the adjuvant setting in postmenopausal women. Based on the initial condition assumptions noted, the greatest expected utility is observed with mammography with an expected five year survival of 98.35% compared to 98.26% in unscreened women. This translates into an additional survival at 5 years for some 13,700 women if screening was applied to all age 65 and over women in this country. Screening is also associated with the greatest expected annual cost of $85.68 compared to $44. for unscreened women. Based on the initial conditions, the cost for each additional individual surviving for five years in the screening program is $47,394.

However, cost-effectiveness estimates were very sensitive to prevalence and health care cost assumptions. The marginal cost-effectiveness reflects the cost per additional individual surviving five years while the breakeven point represents the threshold at which marginal cost-effectiveness reaches zero or the net cost is the same in the screened and unscreened population. Sensitivity analysis permits study of the impact of varying measures of test performance, prevalence and cost on measures of cost-effectivess. Two and three-way sensitivity analyses permit a study of the simultaneous impact of two or three variables on cost-effectiveness.

The results demonstrate that cost-effectiveness increases with increasing disease prevalence reaching break-even at a prevalence of approximately 1.4%. Cost-effectiveness improves with increasing test specificity reaching a marginal cost-effectiveness of $24,319. per increase in five year case survival at 100% specificity. Sensitivity has minimal impact on measures of cost-effectiveness in this model. Cost-effectiveness increases with decreasing cost of mammography reaching breakeven at about $10. Cost-effectiveness increases as the cost of managing relapsing patients increase with a breakeven of approximately $65,000. With mammography cost at $30. and the assumed level of prevalence, the breakeven cost of treating relapsed patients falls to approximately $40,000. The same can be achieved at mammographic costs of $50. by increasing the specificity to 96%.

The model reported here suggests that under the initial conditions assumed, application of screening mammography to the 65 and over female population in this country would save lives. The cost of these lives saved relates largely to the cost of large scale screening. Relaxation of conservative assumptions pertaining to test specificity and disease prevalence would dramatically reduce the cost associated with improved survival. In fact, based on achievable test performance measures and strict cost restraints possible with large scale screening, a net breakeven situation is achievable. With rising health care costs of treating recurrent disease, improvements in the cost-effectiveness of mass screening should be readily achievable. In addition, the model presented here does not even begin to address the improvement in patient quality of life and the reduction in indirect costs unquestionably associated with effective breast cancer screening. It is essential, however, that mammographic specificity be maximized in order to minize the false positive rate. In addition, it is essential that the costs of confirmatory aspirations and biopsies be kept as low as possible. Due largely to the high prevalence of breast cancer in elderly women and the good test performance with minimal risk now associated with mammography, cost-effective large scale screening of women age 65 and over is possible. Since such an approach also saves lives such large scale screening is essential.

Despite these recommendations, however, only 15 to 20% of American women age 50 and older have ever had a mammogram including only 16% of women 65 and over. The proportion of women being screened on a regular basis is much smaller. Since most mammograms are performed for specific clinical indications, the percentage undergoing routine screening is indeed very small. In addition, available data suggests that mammogram use decreases with decreasing socioeconomic status.

Despite the apparent belief of most physicians that mammography is effective in detecting early stage breast cancer, less than 10% recommend annual mmammography to asymptomatic women over the age of 50. The most frequently stated reason for not following current guidelines is patient expense. Other frequently noted reasons include the potential for radiation risk and the presumed low effectiveness. In a recent compliance study, almost 50% of patients referred for mammography refused with only 8% of asymptomatic women who had to pay for the exam complying with their physicians recommendations.

The American Cancer Society currently recommends annual mammography in all asymptomatic women age 50 or greater. As has been shown, large-scale application of screening mammography to women age 65 and greater can be cost-effectively utilized to save lives through earlier diagnosis. One of the major deterents to large scale use of screening mammography is the cost to the individual patient many of whom are on fixed limited incomes. It makes eminantly reasonable sense both medically and economically for screening mammography in patients age 65 and over to be covered by Medicare. By containing medical costs and and enhancing test performance with large scale use, the net cost to the government of screening mammography should be minimal. Additional measures are available to further reduce costs if necessary such as the used of single view mammograms, longer screening intervals and the introduction of less costly screening facilities such as mobile units. It will also be necessary to further educate both physicians and patients concerning the value and minimal risk of screening mammography. Most importantly, it is essential that economic barriers to effective breast cancer screening in those most greatly affected, the elderly, be removed.

TABLE 1

Age Group	1980 Female Population	1978-81 Breast Cancer Incidence Rates/100,000py	Estimated Cases	Predictive Value Positive		Predictive Value Negative	
				Initial Screen	Steady State	Initial Screen	Steady State
0-4	7,986,245	0	0	-	-	-	-
5-9	8,160,876	0	0	-	-	-	-
10-14	8,925,908	0	0	-	-	-	-
15-19	10,412,715	.1	10	.0000138	.0000075	.9999995	.9999997
20-24	10,655,473	1.2	128	.0001656	.0000900	.9999939	.9999967
25-29	9,815,812	8.2	805	.0011305	.0006147	.9999581	.9999772
30-34	8,884,124	25.9	2301	.0035632	.0019392	.9998676	.9999280
35-39	7,103,793	60.2	4277	.0082482	.0044974	.9996721	.9998327
40-44	5,961,198	105.9	6313	.0144314	.0078882	.9994580	.9997056
45-49	5,701,506	156.5	8923	.0212002	.0116193	.9991984	.9995648
50-54	6,089,362	185.3	11,284	.0250170	.0137321	.9990506	.9994846
55-59	6,133,391	215.4	13,211	.0289787	.0159319	.9988959	.9994007
60-64	5,417,729	261.0	14,140	.0349277	.0192485	.9986614	.9992736
65-69	4,879,526	292.0	14,248	.0389362	.0214921	.9985017	.9991872
70-74	3,944,577	319.6	12,607	.0424810	.0234822	.9983595	.9991102
75-79	2,946,061	338.7	9,978	.0449209	.0248553	.9982610	.9990569
0-84	1,915,806	340.6	6,525	.0451630	.0249917	.9982512	.9990516
85+	1,558,542	378.4	5,898	.0499583	.0276987	.9980562	.9989460
Total	116,492,644	94.98	110,648	.0129600	.0070758	.9995139	.9997360
>65	15,244,512	323.1	48,956	.0429289	.0237340	.9983415	.9991004
50-64	17,640,482	219.0	38,635	.0294506	.0161945	.9988774	.9993907

Based on an assumed uniform test sensitivity of 0.75 and specificity of 0.90 and an estimated mean duration of preclinical disease of 1.84 years. (Zelen and Fainleib)

TABLE 2

BCDDP* AND SEER**
CUMULATIVE RELATIVE FIVE-YEAR SURVIVAL §
WOMEN WITH BREAST CANCER AGE 50 AND OVER

		BCDDP*			SEER**		
Stage		Number	(%)	% 5yr. Survival	Number	(%)	% 5yr. Survival
Intraductal/Insitu		417	(21.9)	98	NA		NA
Size (cm)	LN						
<2	LN-	672	(35.4)	95	4105	(12.6)	97
2-5	LN-	365	(19.2)	89	11,071	(33.8)	89
>5	LN-	130	(06.8)	86	2,108	(06.5)	78
<2	LN+	123	(06.5)	82	1,320	(04.0)	83
2-5	LN+	145	(07.6)	71	6,405	(19.6)	72
>5	LN+	49	(02.6)	57	2,289	(07.0)	57
Stage III (DE) IV		NA .		NA	5,375	(16.5)	-
Total Invasion		1,484	(78.1)	87	32,619	(100.0)	74

* Detected through Screening (Breast Cancer Demonstration Projects).

** White Females (Surveillance, Epidemiology and End Results).

§ Seidman, et al., 1987

TABLE 3

BREAST CANCER SCREENING MODEL

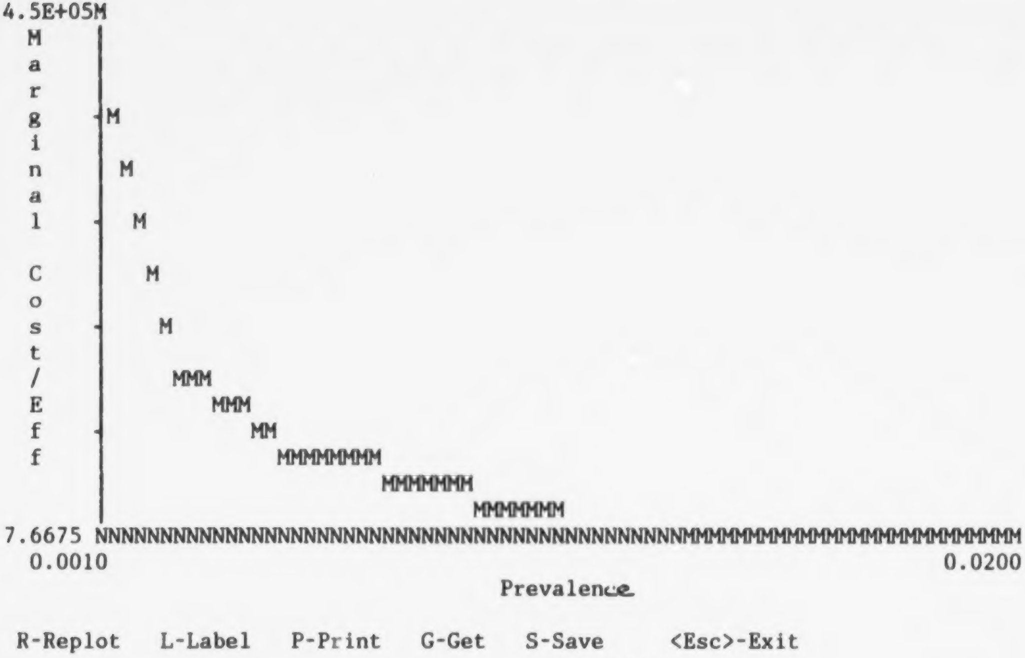
Decision Tree		Effectiveness		Cost
	Probability	5yr. Survival %	Life Expectancy yrs.	
PARTICIPATE				
Have Breast Cancer (Prevalence)	,00595 (0.61)			
Positive Test (Sensitivity)				
In situ/Intraductal	.23	98	11.57	M,B,R
Invasive LN -	.60	92	10.10	M,B,R
Invasive LN +	.17	73	6.88	M,B,H,R
Extensive	0	-	-	-
Negative test (False Negative)				
In situ/Intraductal	.12	98	11.57	M,B,R
Invasive LN -	.69	92	10.10	M,B,R
Invasive LN +	.19	68	6.27	M,B,H,R
Extensive	0	-	-	-
No Breast Cancer				
Positive Test (False Positive)	-	98.4	11.68	M,B
Negative Test (Specificity)	-	98.4	11.68	M
DO NOT PARTICIPATE				
Have Breast Cancer (Prevalence)	,00595			
In situ/Intraductal	0	-	-	
Invasive LN -	.53	90	9.67	B,R
Invasive LN +	.31	70	6.51	B,H,R
Extensive	.16	36	3.49	B,P
No Breast Cancer		98.4	11.68	-

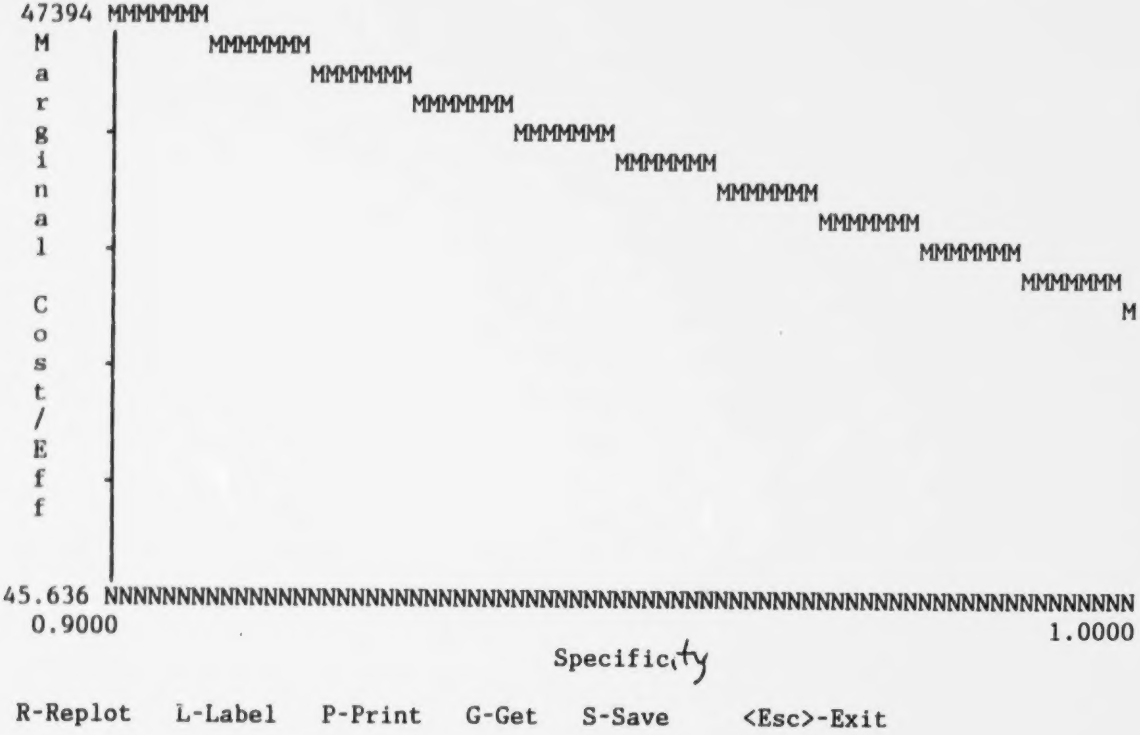
P = Average cost of adjunctive radiation therapy/palliative care
M = Cost of mammography
B = Cost of diagnostic biopsy
R = Cost of treating recurrent disease (adjusted for likelihood of relapse).
H = Cost of hormone treatments (adjusted for likelihood of positive receptors).

APPENDIX

DECISION MODEL

The Cost-Effectiveness of Breast Cancer Screening




47394
Marginal Cost/Eff
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0.9000
1.0000
Specificity
R-Replot
L-Label
P-Print
G-Get
S-Save
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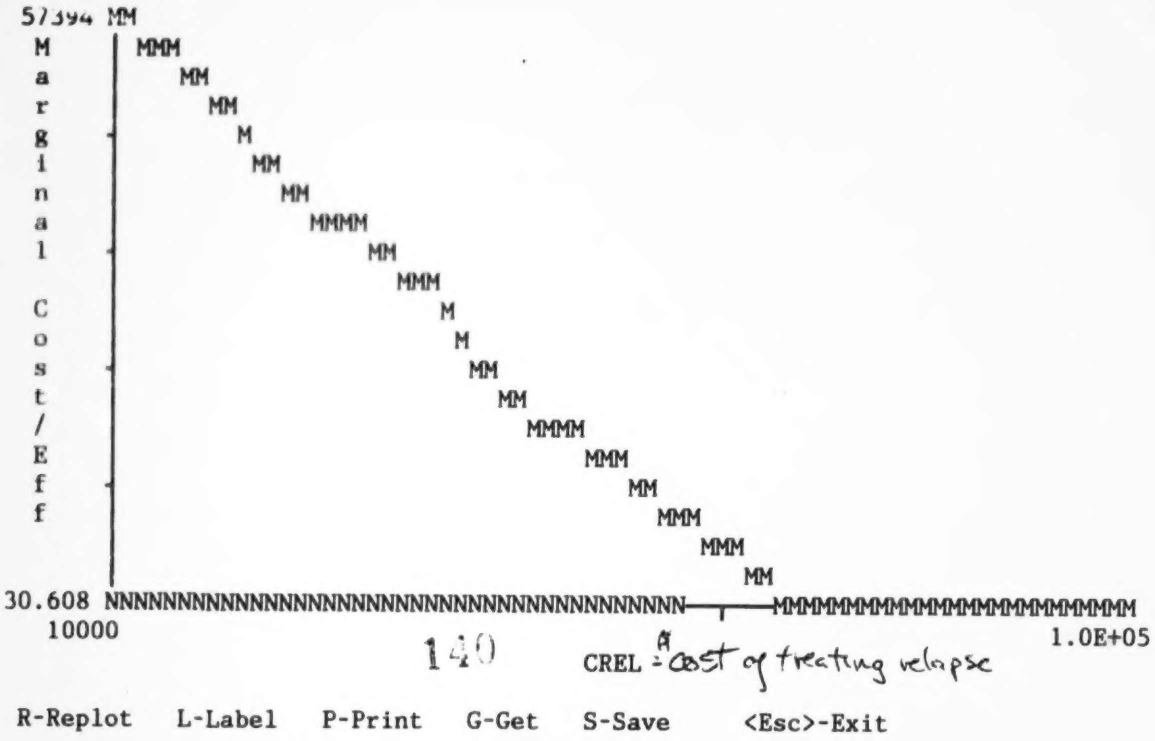
57394
Marginal Cost/Eff
30.608
10000
1.0E+05
CREL = cost of treating relapse
R-Replot
L-Label
P-Print
G-Get
S-Save
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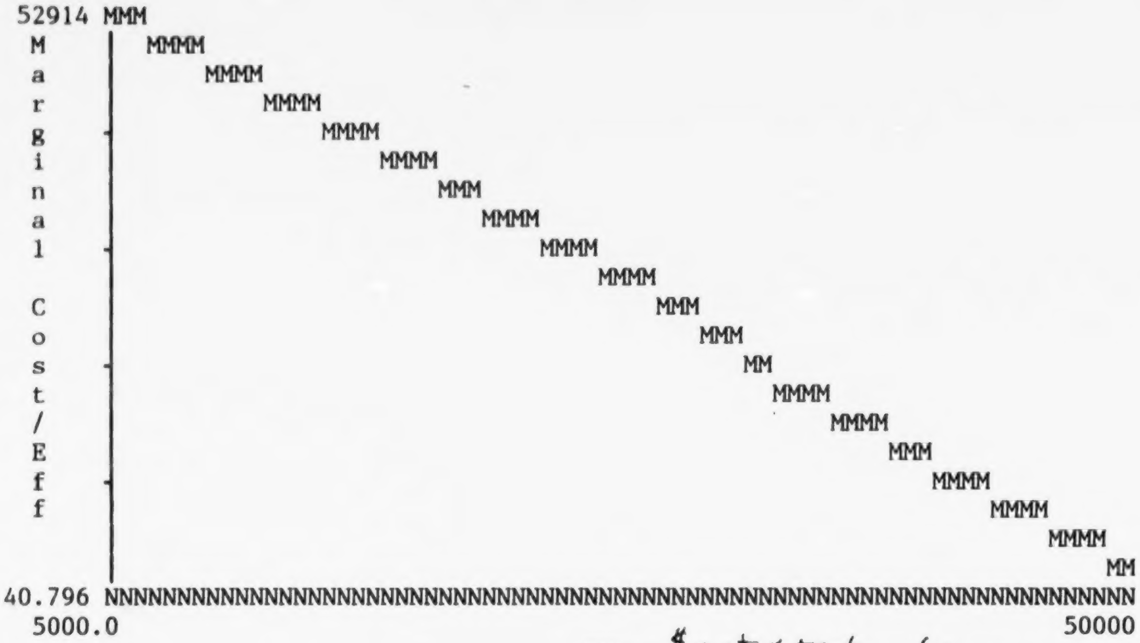
140



PXT = $ cost of treating advance disease at presentation

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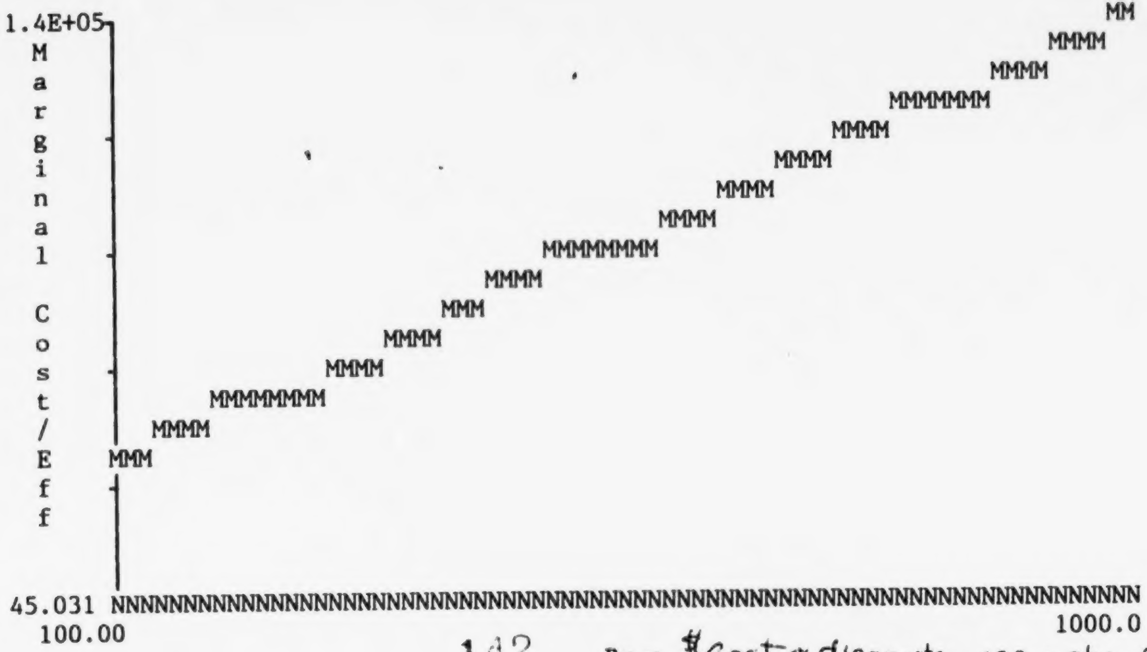

Bx = #cost of diagnostic asp. or biopsy

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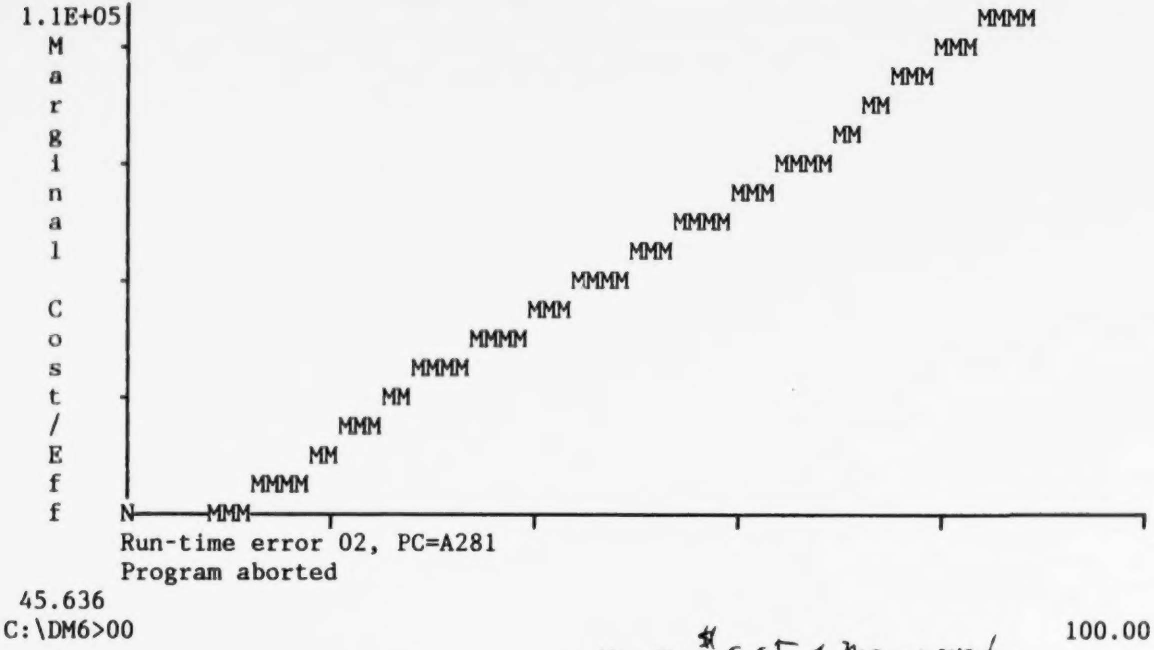

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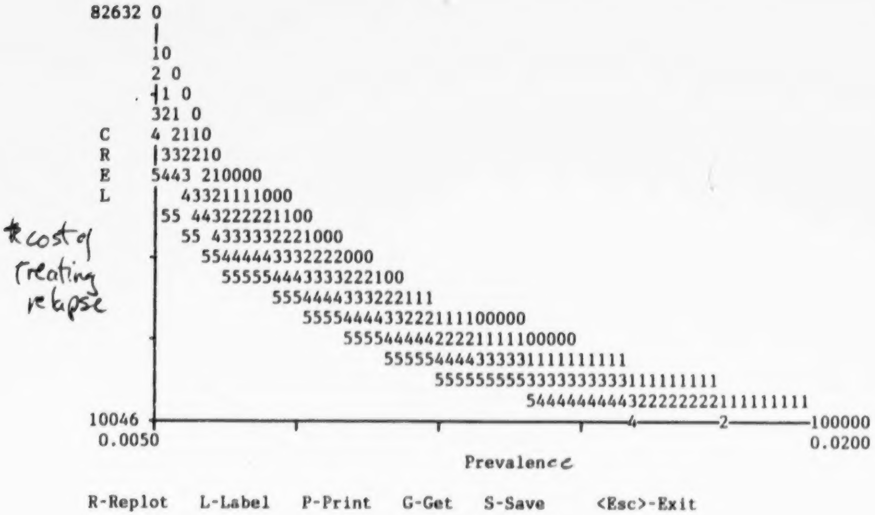
Mam = $ cost of mammography



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      10
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 C    4 2110
 R    |332210
 E    5443 210000
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      |55 443222221100
      |  55 4333332221000
      +    55444443332222000
      |      555554443333222100
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      +                  55554444422221111100000
      |                      555554444333331111111111
      |                           5555555553333333333111111111
      |                                    5444444444322222222211111111
10046 +-------------+-------------+-------------+-----4--------2-------100000
 0.0050                                                                0.0200

                                     Prevalence

R-Replot    L-Label    P-Print    G-Get    S-Save      <Esc>-Exit
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specificity

0 = .90

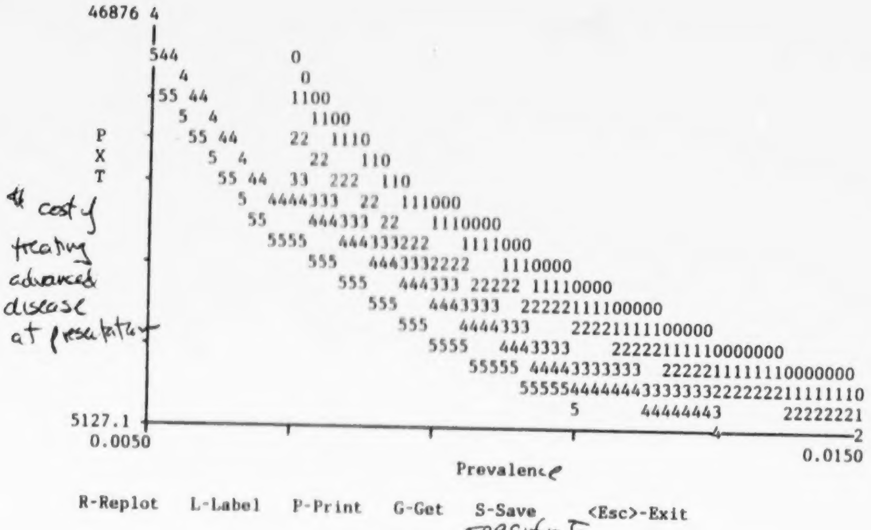
1 = .92

2 = .94

3 = .96

4 = .98

5 = 1.00



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         5  4          1100
          55 44       22   1110
  X         5  4        22     110
  T          55 44    33   222   110
               5  4444333   22   111000
                55     444333 22    1110000
                  5555    444333222    1111000
                      555    4443332222    1110000
                         555    444333 22222 11110000
                            555    4443333  22222111100000
                                555    4444333    22221111100000
                                   5555   4443333    222221111110000000
                                       55555 44443333333  222221111111110000000
                                            5555544444443333333222222211111110
                                                 5      44444443       22222221
5127.1 +--------------------------------------------------------------------------2
0.0050                                                                   0.0150
                                     Prevalence

R-Replot   L-Label   P-Print   G-Get   S-Save   <Esc>-Exit
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4 cost of treating advanced disease at presentation

specificity

0 = .90

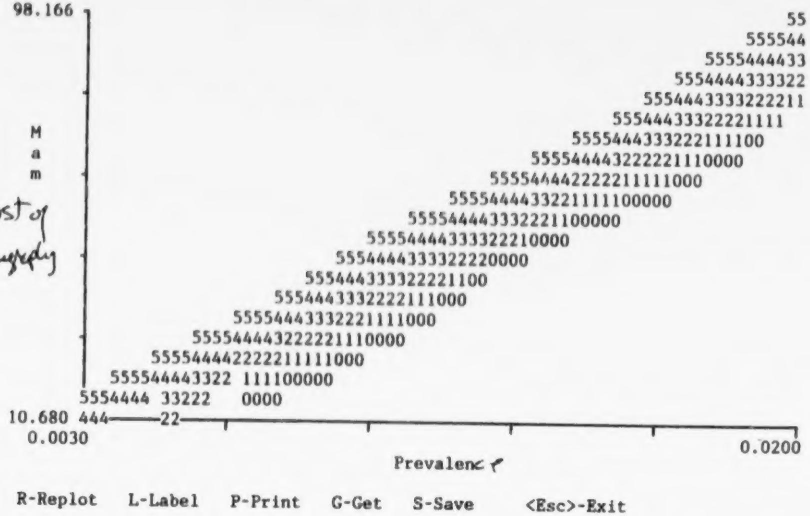
1 = .92

2 = .94

3 = .96

4 = .98

5 = 1.00



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98.166 ┐
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       |                                                             5555444433
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       |                                                    55544433322221111
  M    |                                                5555444333222111100
  a    |                                            5555444432222221110000
  m    |                                        5555444422222211111000
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       |                                555544443332221100000
       |                            55554444333322210000
       |                        5554444333322220000
       |                     555444333322221100
       |                  5554443332222111000
       |              55554443332221111000
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       |  555544443322 111100000
       5554444 33222   0000
10.680 444-----22-----┬-------------┬-------------┬-------------┬-------------┬
  0.0030                                                                 0.0200
                                      Prevalence

R-Replot   L-Label   P-Print   G-Get   S-Save     <Esc>-Exit
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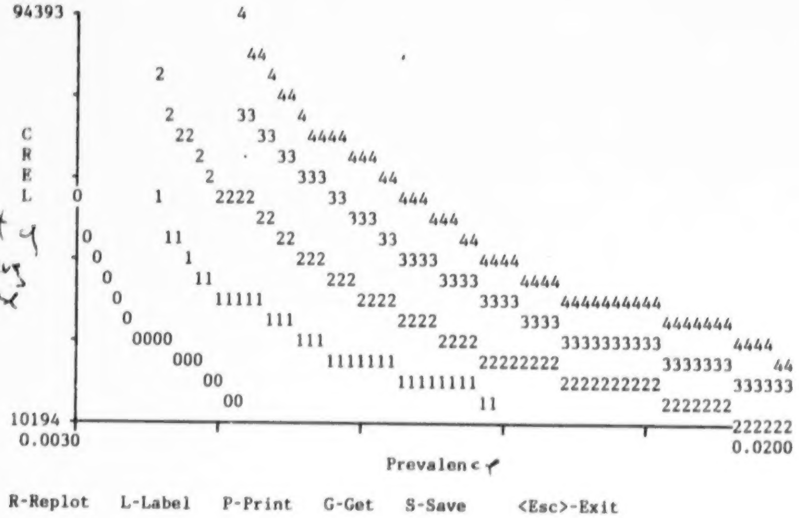
$ cost of mammography

specificity

0 = .90
1 = .92
2 = .94
3 = .96
4 = .98
5 = 1.00



cost of treating relapse

cost of Mammogra.

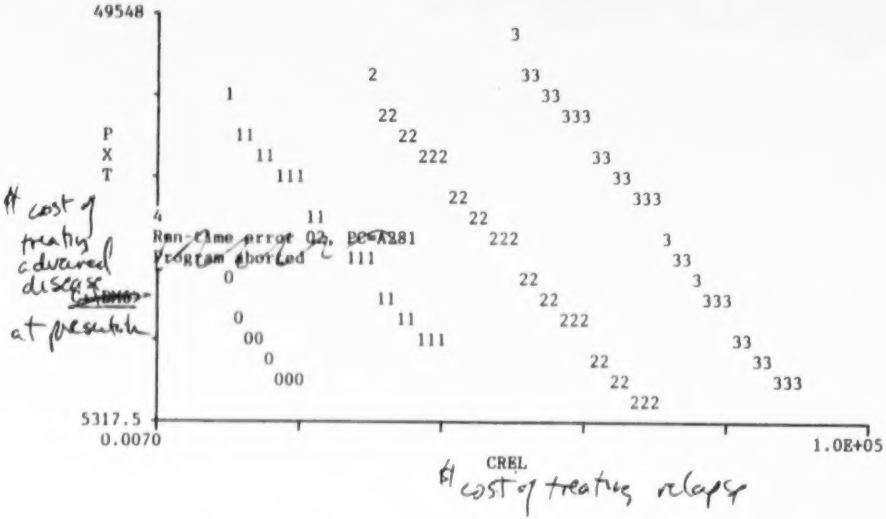
0 = $10

1 = $30

2 = $50

3 = $70

4 = $90



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Program aborted
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Cost of Mammography
0 = $10
1 = $30
2 = $50
3 = 70
4 = 90

STATEMENT OF JACK KASSAN, M.D., MEDICAL DIRECTOR, BROWARD COUNTY MEDIVAN, FORT LAUDERDALE, FL

Dr. KASSAN. Yes, sir. Senator Mitchell and Senator Graham, I, too, wish to thank you for this opportunity to present what we consider to be an extremely innovative and unique approach to the care of the medically undeserved segment of the elderly.

In my position as Medical Director of the Medivan project of the Elderly Interest Fund, Inc., I have had more than ample opportunity to observe and become aware of the inadequacy of health care to a large segment of the senior population of Broward County in particular, and I am sure this is a reflection of the situation in other areas of southeast Florida.

According to a study in our area toward the end of 1985, which I am sure has increased in the intervening time, the demographics were as follows: a total of 327,000 seniors resided at that time in Broward County; 27,000 lived at poverty level or below; 80,000 suffered from a handicap, and a majority required the use of a cane, walker, or wheelchair. 46,200 aged 75 plus—and I wish to emphasize that 75 plus age, have medical problems serious enough to impair their independence. A number of medically indigent and isolated seniors have had no contact with a physician for 3 years.

The population group between 60 and 65 who have no insurance, private or Medicare, delay medical attention, ultimately creating an even greater financial burden.

In an attempt to address this ever-increasing problem, a group of socially interested and dedicated people formed an organization known as the Elderly Interest Fund, Inc. A number of these wonderfully dedicated, socially interested people are here today, and they deserve a vote of thanks. Believe me, they are simply marvelous.

So, they formed this Elderly Interest Fund, whose primary goal was to alleviate this situation with the aid and support of the area agency on aging of Broward County. After several years of tireless efforts and fund-raising from corporate and private sources, the Elderly Interest Fund, Inc., created a project known as the MediVan.

As you came in, you probably saw it, and I hope you did. You saw the MediVan parked out in front. You are invited to come aboard and see what this medical mobile situation really consists of; it is something to see.

This is a unique, and I say innovative, mobile clinic providing free health screening, health education, diagnosis, treatment, referrals, and support to Broward County's medically underserved senior population. MediVan is staffed by retired physicians, nurses, social workers, and nutritionists, all volunteering their time and expertise to the program. A project director, a van driver—who also acts as the site director—and an office secretary are the only paid personnel. All volunteer personnel are selected and screened by members of the MediVan Health Care Executive Committee, including members of the Broward County Medical Society Association, and the Broward County Public Health Unit.

All physicians practicing in the MediVan have a Florida license or a limited license provided by the State Board of Medicine. Malpractice insurance is provided for physicians under the State of

Florida Risk Management Insurance Program as agents of the State health and rehabilitative services.

Since its initiation on June 9, 1986, MediVan has visited 20 sites on a regular basis and established 4,000 patient contacts and is administering care to 285 plus patients on a regular monthly basis. These patients are primarily homebound with chronic health conditions. It is of more than passing interest to be aware that MediVan has intervened in approximately 20 life-threatening situations.

MediVan seeks out its patients in low-income housing facilities, retirement and boarding homes, day care centers, older condominiums, and where medically indigent and isolated seniors are known to reside. Just to interpose, you will be interested to know we make house calls. [Laughter.]

The average age of MediVan patients is 82, with a number exceeding 95. The average monthly income is $320 per patient. The MediVan concept conceived in an effort to meet and at least partially solve the increasing problem of bringing medical attention and care to the elderly in need is, indeed, a worthy one; and interestingly enough, it is unique.

It is our opinion that it could be and should serve as a model to other communities where the problem exists.

In addition to MediVan, Broward County is lucky to receive Older Americans Act funds, which serve to provide health support services. Nurses are in place at senior and day care centers; these nurses provide health screening and health education, which enables the well, independent participants to remain healthy and the frail, semidependent to improve or maintain their conditions.

The senior and day care centers also provide other services that help to keep seniors in the community. These centers are able to function because of the Federal Older Americans Act and the State community care for the elderly.

As we are all aware, or certainly should be aware, Senator Graham was largely instrumental in creating this State program while he was our Governor. We believe that these programs must be maintained and supported and that new innovative programs like the MediVan can be encouraged.

Thank you for your attention and for the opportunity of bringing not only a problem to your attention but an attempt at a partial solution.

[Applause.]

Senator MITCHELL. Ms. Kanter-Bruin, you have the last word.

Ms. KANTER-BRUIN. Last but not least?

Senator MITCHELL. We all know that is the most important word of all. So, we look forward to hearing from you.

[The prepared statement of Dr. Kassan follows:]

MediVan

Dear Senators Graham and Mitchell,

In my position of Medical Director of the MediVan Project of the Elderly Interest Fund, Inc., I have had more than ample opportunity to observe and become aware of the inadequacy of health care to a large segment of the senior population in Broward County in particular and I am sure this is a reflection of the situation in other areas of Southeast Florida.

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- 46,200 age 75+ have medical problems serious enough to impair their independence
- A number of medically indigent and isolated seniors have had no contact with a physician in 3 years
- The population group between 60 and 65 who have no insurance (private or medicare) delay medical attention ultimately creating an even greater financial burden

In an attempt to address this ever increasing problem, a group of socially interested and dedicated people formed an organization known as the "Elderly Interest Fund, Inc." whose primary goal was to alleviate this situation with the aid and support of the Area Agency on Aging of Broward County.

After several years of tireless efforts and fundraising from corporate and private sources, the Elderly Interest Fund Inc. created a project known as the "MediVan". This is a unique and innovative mobile clinic providing free health screening, health education, diagnosis, treatment, referrals and support to Broward County's medically underserved senior population.

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[illegible]
5345 [illegible] 33309

Association and the Broward County Public Health Unit. All physicians practicing on the MediVan have a Florida Licence or a Limited License provided by the State Board of Medicine. Malpractice insurance is provided for physicians under the State of Florida Risk Management Insurance Program as agents of the state through Health and Rehabilitative Services.

Since its initiation on June 9, 1986, MediVan has visited 22 sites on a regular basis and established 4000 patient contacts, and is administering care to 285+ patients on a monthly basis. These patients are primarily homebound with chronic health conditions. It is of more than passing interest to be aware that MediVan has intervened in approximately 20 life-threatening situations.

MediVan seeks out its patients in low-income housing facilities, retirement and boarding homes, day-care centers, older condominiums and where medically indigent and isolated seniors are known to reside. The average age of MediVan patients is 82 with a number exceeding 95. The average monthly income is $320 per patient.

The MediVan concept conceived in an effort to meet and at least partially solve the increasing problem of bringing medical attention and care to the elderly in need, is indeed a worthy one and interestingly enough is unique. It is our opinion that it could and should serve as a model to other communities where the problem exists.

In addition to the MediVan, Broward County is lucky to receive Older American Act funds which provide health support services. Nurses are in place at senior and day-care centers. These nurses provide health screening and health education which enables the well independent participants to remain healthy and the frail semi-dependent to improve or maintain their conditions. The senior and day-care centers also provide other services that help to keep seniors in the community. These centers are able to function because of the federal Older American Act and the state Community Care for the Elderly Act. As we are all well aware, Senator Graham was largely instrumental in creating the State program. We believe that these programs must be maintained and supported, and that new innovative programs like the MediVan be encouraged.

Thank you for your attention and for the opportunity of bringing not only the problem but an attempt at a partial solution to your attention.

HRS
STATE OF FLORIDA
DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES

March 25, 1986

Evelyn Glasser
Coordinator, MMU
Elderly Interest Fund, Inc.
5345 Northwest 35th Avenue
Fort Lauderdale, Florida 33309

Dear Mrs. Glasser:

The Broward County Public Health Unit is in support of the Elderly Interest Fund, Inc. Mobile Medical Unit project for the elderly. We are aware that many of the elderly in lower income groups do not avail themselves of regular medical care, particularly prevention and early intervention. I think that the proposed project would enhance the possibility that many of these patients would get earlier medical care and prevent complications from various chronic illnesses.

It is our intention to work with the Elderly Interest Fund and to enter into an agreement to enable the physicians to be classified as volunteers under the Department of Health and Rehabilitative Services.

We look forward to working with you on this much needed project.

Sincerely,

Charles Konigsberg, Jr.

Charles Konigsberg, Jr., M.D., M.P.H.
District Health Program Supervisor-HRS
Broward County Public Health Unit Director

CK/jo
cc: BCPHUA (Myra Lentz)
AMED (Robert Hayes, M.D.)
LC (Martha Barrera)

DISTRICT TEN
201 WEST BROWARD BOULEVARD • FORT LAUDERDALE, FLORIDA 33301-1885
BOB GRAHAM, GOVERNOR

Broward County Medical Association

odore W. Hahn, M.D., President
er A. Tomasello, M.D., President-Elect
Juan A. Wester, M.D., Vice-President
Paul Flaten, M.D., Secretary
Kenneth H. Farrell, M.D., Treasurer
George P. Messenger, M.D., Immediate Past-President
Jerry D. Moore, M.D., Chairman, Board of Trustees

March 7, 1986

Mrs. Evelyn Glasser
3850 N. 43rd Avenue
Hollywood, Fl 33021

Dear Mrs. Glasser:

The Executive Committee upon receiving the report of the membership committee on the three doctor's applying for limited licenses placed a seal of approval on the three doctor's. They also wish to reaffirm the project of the ELDERLY INTEREST FUND in providing medical services to elderly indigents.

Sincerely,

William G. Stafford
Executive Vice-President

William G. Stafford, Executive Vice President
2200 S. ANDREWS AVE — P.O. BOX 22907 — FORT LAUDERDALE, FL [illegible]

Broward County Medical Association

rge P. Messenger, M.D., President
dore W. Hahn, M.D., President-Elect
P. r A. Tomasello, M.D., Vice-President
Kenneth H. Farrell, M.D., Secretary
Juan A. Wester, M.D., Treasurer
Ernest G. Sayfie, M.D., Immediate Past-President

16 September 1984

Mrs. Evelyn Glasser
Area Agency on Aging
2700 West Oakland Park Boulevard
Ft. Lauderdale, Florida 33311

Dear Mrs. Glasser:

The Executive Committee of the Association heard a report from the President, Dr. George P. Messenger,with reference to a meeting with the feasibility of a facility similiar to the Sunshine Health Centers of Sarasota County.Mr. Stafford had made a previous report on the subject, and other meetings on the premise.

We should like to express our interest,and voice our support for the project. We would concur with the need; and recognize the lack of organized services to this segment of our elderly population. The Association would also applaud the Agencies' initiative in meeting this need.

Sincerely yours,

Kenneth H. Farrell, M.D.
Secretary

William G. Stafford, Executive Vice President
2200 S. ANDREWS AVE — P.O BOX 22807 — FORT LAUDERDALE FL 33335 305/525-1595

BROWARD REGIONAL HEALTH PLANNING COUNCIL, INC.
500 S.E. 17th St. Suite 301, Ft. Lauderdale, Fl 33316 • (305) 763 2900

[illegible]

March 18,1986

Elderly Interest Fund
5345 N.W. 35th Avenue
Ft. Lauderdale, Florida 33309
Attn: Evelyn Glasser

Re: Health Manpower Shortage Areas - Broward County Florida

Dear Ms. Glasser:

As you know, Health Manpower Shortage Areas are federally designated for a variety of specialties including primary care. The primary care categories include pediatricians, family practitioners, general practitioners, internists, and obstetricians. According to the National Health Service Corp, Broward County contains 13 Health Manpower Shortage Areas which have been designated by census tracts. Those census tracts are:

Census Tracts - 103.01, 103.02, 104, 107, 302, 303, 304, 305, 306, 307.01, 307.02, 308.01, 308.02.

The above designations were made on March 21, 1984. It is our understanding that the Elderly Interest Fund is proposing to utilize a mobile medical unit with volunteer retired physicians, and other practitioners to meet the needs of the medically underserved in Broward County. I support the efforts of the Elderly Interest Fund as they attempt to meet the needs of this medically underserved population. If I may be of any further assistance to you in this manner, please let me know.

Sincerely,

John H. Werner
John H. Werner
Executive Director

JHW:bg

AN EQUAL
ORTUNITY
EMPLOYER

DRAFT
April 13, 1981

What is a Medically Underserved Area? By definition from the Federal Register (Vol. 41, No. 201, October 15, 1976), an MUA is an urban or rural area designated by the Secretary of Health and Human Services as an area with a shortage of personal health services.

Four factors are considered in designating an MUA:

1. Ratio of primary care physicians to population,
2. Infant mortality rate,
3. Percent of the population which is age 65 or over, and
4. Percentage of the population with family income below the poverty level.

In Broward County, there are twelve (12) isolated census tracts that were designated as Medically Underserved Areas (MUAs) in the Federal Register of October 15, 1976. There are three (3) additional MUAs which have been designated since 1976:

1. Census tract 305 in Pompano Beach, which is also a Manpower Shortage Area, receiving funds through Public Law 94-63, Section 329, to provide health services to migrants. This area is bounded by Sample Rd. on the north, Atlantic Blvd. on the south, the Seaboard Coastline Railroad on the east, and Powerline Rd. on the west.

2. Census tracts 102 and 103 in Deerfield Beach. This area is bounded by the Hillsboro Canal on the north, the Deerfield city limits on the south, Federal Hwy. on the east, and I-95 on the west (except a portion north of Hillsboro Blvd. and west of I-95, bounded on the west by Powerline Rd.).

3. Census tracts 409 through 416 and 508 in central Ft. Lauderdale. This is an irregular area which is primarily bounded by Oakland Park Blvd. on the north, Broward Blvd. on the south, NW 9 Ave. on the east, and State Rd. 441 on the west.

The Health Planning and Development Council for Broward County, Inc., (HPDC) in cooperation with the City of Deerfield Beach and the Consumers Information Council, Inc. of Deerfield Beach, was instrumental in applying for MUA designation for the area in Deerfield Beach. The HPDC in a cooperative effort with the Broward County Primary Health Care Division assisted in gathering data and making the formal request to DHHS for MUA designation of the area in central Ft. Lauderdale, and is concerned that personal health services be made available within the Medically Underserved communities.

The Primary Health Care Division and the Health Planning and Development Council intend to complete an assessment of the entire county to determine further areas of personal health services shortage.

Medically Underserved Census Tracts

Broward County contains 35 census tracts which have been federally designated as medically underserved. In 1980, these census tracts contained 221,018 individuals. 38,713 (17.5) had incomes below 100% of the poverty level and 42.7% (94,341) had incomes below 200% of the poverty level. "Broward's medically indigent population is larger than the total population of 57 of Florida's 67 counties. If Broward's medically indigent population were considered as a separate county, it would be the 11th largest county in the State."

Source: Department of Health and Rehabilitative Services,
Grant Application for Primary Care funding, 1985

ELDERLY INTEREST FUND, INC.
MEDIVAN
CASE STUDIES

Patient Profile:	74 year old white male
Income:	$362 per month
Residence:	Low-Income Apartment in central Ft. Lauderdale. Lives alone
Medical Status:	MediVan made a site visit to a primarily low-income facility located in the heart of Ft. Lauderdale. During the initial screening process, this patient was found to exhibit symptoms of Tuberculosis. He was immediately referred to a local referral doctor for x-ray confirmation of illness. No charge to the patient. The patient was admitted to Broward General Hospital for ten days with the diagnosis of T.B. He was discharged to the care of the Public Health Unit who can transport him for follow-up treatment. 80 seniors in the identified facility had to be tested for T.B. exposure following repeated close contact with the patient for the previous two years. Patient had no regular doctor due to financial hardship.
Patient Profile:	70 year old white female
Income:	Combined with spouse - $763 per month
Residence:	Low-Income Housing in Davie
Medical Status:	Presented to the van on initial site visit last June in highly unstable medical condition. Patient was markedly obese (400+lbs), had severe osteoarthritis requiring the use of a wheelchair, and suffered from uncontrolled blood sugar. Previous year's medical history included three hospitalizations for Diabetic Coma, Congestive Heart Failure and Heart Attack. She did not seek regular medical care due to limited funds and severe physical disabilities. MediVan physicians have monitored this patient for the past seven months on a monthly basis. This regular health check has resulted in moderate weight loss, lowered and more controlled diabetic condition and relief from chronic pain. Arrangements were made to have patient transported to local podiatrist for treatment of diabetes-related foot problems at no charge to patient. Patient was also referred to,and seen by, local internist for specialty workup. Physician accepted only whatever Medicare allowed. (No deductible, no co-payment)
Patient Profile:	57 year old black male
Income:	$356 per month
Residence:	Low-Income apartment in North Hollywood. Lives with sister.
Medical Status:	Patient's sister came to the MediVan while it was in their neighborhood and requested permission to bring her brother to the Van for medical care. Patient is mentally and physically impaired and is confined to a wheelchair. The sister stated that her brother had been going to Primary Health Care, but it was an extreme hardship to bring him to the clinic due to his severe physical disabilities and problem of incontinence. MediVan's initial visit found the patient to have a flaccid and deformed arm and hand, poor dental care, poor air exchange, hypertension, mental retardation and difficulty with hearing. His blood pressure was measured at 182/108 and the patient was started on anti-hypertension medication. At present, his blood pressure is being controlled and he is able to be monitored on a regular schedule.

Patient Profile: 61 year old white female
Income: $408 per month combined with spouse
Residence: Low-Income Housing in central Ft. Lauderdale. Lives with spouse. Both are wheelchair bound.
Medical Status: Patient presented to the Medivan in her wheelchair requesting assistance with medical care. She has a long history of medical problems. Patient had a myocardial infarction in 1960 and cerebral vascular accident (CVA) in 1968 which left her partially paralyzed. Since the patient was unable to access her regular physician, the MediVan doctor worked in tandem with her physician to provide on-going care. Lab work was performed by the MediVan staff and copy of reports were sent to patient's private doctor. In January 1987, the patient suffered a severe myocardial infarction and is now in cardiac and respiratory failure. She is completely bedbound and uses oxygen continuously. She does not wish to be hospitalized since her husband would be unable to visit her. The patient is being monitored on a regular schedule by the MediVan physicians. Lab work reports and EKGs are mailed to her attending physician who had requested that we assume her primary care. Progress notes are also forwarded to the attending physician. At this time, the patient's prognosis is very poor.

Patient Profile: 79 year old hispanic male
Income: $537 per month
Residence: Private home in Pembroke Pines. Lives alone following the recent death of spouse.
Medical Status: Patient presented to MediVan at the Pembroke Pines Senior Day Care Center. He had not seen a physician in several years due to financial constraints. Had a history of hypertension. Depressed over his wife's death. Is being treated for hypertension and monitored for other chronic complaints. Moral support is being provided by MediVan social workers and other staff members.

Patient Profile: 94 year old white female
Income: $488 per month
Residence: Private home in Ft. Lauderdale. Lives with her daughter who is out of work.
Medical Status: Patient attends a local daycare center. The MediVan staff was asked to give her a physical so she could remain in the center. The patient could not afford a private physician. The patient was found to have anemia, low B12 levels, hypertension and arterial sclerotic heart disease. She has been treated with B12 injections and iron supplements. Due to patient's lack of funds, the MediVan is paying for her medication

Patient Profile: 92 year old black female
Income: $336 per month
Residence: Apartment in Low-Income area in Ft. Lauderdale. Lives with her daughter who also has health problems.
Medical Status: Presented to the MediVan with complaints of episodic shortness of breath during the night in addition to joint pain. The patient was found to have arterial sclerotic heart disease, hyperglycemia, hypertension, and arthritis of the hands. Due to patient's age and frail condition, medication was not prescribed for arrythmia but patient was put on nitroglycerin for angina. She is being monitored on a regular basis for possible changes in her condition. Lack of regular medical care prior to MediVan due to financial constraints and difficulty accessing stationary clinics in other areas of the county.

Patient Profile: 66 year old black female

Income: $340 per month

Residence: Lives with younger sister (61) in Low-Income Apt. in central Ft. Lauderdale. Has Medicaid.

Medical Status: On visitation to church meal site in predominantly low-income black area, this obese, severely retarded female was accepted into the MediVan program five months ago for monitoring of uncontrolled hypertension, chronic upper respiratory infections and visual problems. Patient's sister has sole responsibility for patient and was experiencing great difficulty in accessing Primary Health Care on regular basis due to emotional instability of patient. She is extremely difficult to handle. Patient and sister are both able to walk a short distance to be examined by the MediVan staff. Reduced cholesterol levels, controlled hypertension and weight loss have been achieved in this patient through the combined efforts of the physician, nurse and nutritional consultant.

Patient Profile: 70 year old black male

Income: $338 per month

Residence: Lives alone in 1 rented room in predominantly low-income black area.

Medical Status: On visitation to local church meal site, the MediVan staff learned of this patient's need for medical care in his home. The physician and nurse home visit revealed this patient, bedbound, with bi-lateral amputation below the knees. An ill-fitting prosthesis on one leg limited patient's ability to leave his bed. The patient could not receive a new prosthesis from Medicare without a physician's prescription and no doctor would make a house call. Food stamps were discontinued due to the patient's inability to be interviewed at the Food Stamp office. Multiple medical conditions required expensive drug therapy. Although the patient has Medicaid, his medication needs exceeded his drug cap. MediVan facilitated an increase in his cap. The MediVan physician's prescription enabled the patient to secure a new prosthesis allowing him increased mobility. Although this patient is illiterate, the MediVan nutritionist was able to assure the patient's improved dietary intake through the assistance of his landlady. This patient was referred to us by Primary Health Care.

Patient Profile: 60 year old white female

Income: $530 per month

Residence: Low-Income Housing in central Ft. Lauderdale. Lives with retarded daughter.

Medical Status: Patient had great difficulty accessing medical care because of incomplete financial records which precluded her from Primary Health Care eligibility. Living situation severely stressed through caring for severely retarded daughter. Daughter cannot be left unattended thereby restricting patient's mobility. Patient is a severe diabetic and presented with uncontrolled sugar count and various other medical problems. Critical medication was not being taken as prescribed due to inability to purchase on regular basis and because of high expense. Patient has been regularly monitored by MediVan physician and instructed on the significance of consistent drug therapy. The MediVan staff facilitated patient's acceptance into Medicaid program which ensures her ability to secure vital medication. Sugar count is under control. Nutritional review and consultation by MediVan nutritionist has resulted in necessary weight loss thereby reducing possible diabetic complications.

Patient Profile:	57 year old white female
Income:	$156 per month
Residence:	Low-Income apartment in central Ft. Lauderdale. Lives alone. Has Medicaid.
Medical Status:	Wheelchair bound obese female with severe lower extremity skin eruptions. Uncontrolled diabetic eligible for Primary Health Care services but unable to avail herself of them on a regular basis due to severe physical disabilities. Primary Care referred this patient to MediVan for monthly monitoring. Regular home visits have been made by MediVan staff which have resulted in patient's greatly improved health status. MediVan arranged to have prescribed medications delivered to the patient's apartment by local pharmacist at no charge.

■ FORT LAUDERDALE NEWS/SUN-SENTINEL ■ WEDNESDAY, OCTOBER 7, 1987

MediVan
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A PROJEC
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Have medicine will travel to the elderly

Site supervisor Fred Horn takes the blood pressure of Julie Andrews, of Lauderhill, during a visit of Medivan, a medical clinic that travels to 22 sites in Broward County.

Page 3

Serving Lauderdale Lakes, Lauderhill, Plantation, Sunrise and Tamarac

Seniors deliver medical service to elderly poor

By RANDYE HODER
Staff Writer

For most doctors, making house ills is a thing of the past.

But not for the retired doctors, ırses and social workers who volıteer their time each week to ing free medical care to some of roward County's 27,000 elderly ıor.

This summer marks the one-year ıniversary of MediVan, a roving edical clinic, which travels to 22 tes in the county treating senior tizens for everything from loneliss to life-threatening diseases.

The van travels on five-week rotions to areas where large nums of elderly poor live.

Those eligible for medical care om MediVan must be at least 60 ars old and have an income of ,000 or less for single people and 0,000 or less for couples.

"For some of these people this is e only medical attention they've tten in years," said Linda Allen, ogram director and one of three d personnel. "And it's likely to the only medical attention ey'll ever get."

For Irving Thayer, 72, of Fort uderdale the care he gets from ediVan professionals means ore to him than regular checkups d getting the medication he eds. It means his independence.

"I don't know what I'd do without se people," Thayer said. "If I In't have MediVan I'd probaly d up in some rest home. But 'd have to drag me there. I just n't stand the idea of going."

The people who help Thayer, and those like him, feel just as strongly about the program.

"I've been a doctor for more than 50 years," said Jack Kassan, 75, "and in all those years, and with all the things I've accomplished, this is without a doubt the most satisfying and fulfilling experience I've ever had."

Sponsored by the Elderly Interest Fund Inc., a volunteer group, MediVan's mission is to serve people who are too poor to get basic medical care, or unable to get transportation to county or state clinics set up for the poor.

"There is this myth about the Gold Coast," said Evelyn Glasser, coordinator of MediVan, "that people retire here and everyone is living the good life. But then you find there are these silent pockets of poverty all over the county."

Glasser said there are other mobile units that serve elderly people, but that MediVan is unique because it is seniors helping seniors.

"All of our physicians are elderly, so they know and understand from experience the problems the aging are suffering," Glasser said.

After being on the road for little more than a year, MediVan has expanded the areas it visits from 10 to 22 sites. It also has learned from experience which services its clientele really need.

For example, providing free medication to clients has turned out to be one of the most unexpected and important services MediVan offers.

"We never planned on it, but as the program grew it became obvious that this was a major problem," Glasser said. "Why see someone who is so crippled up with arthritis that they can barely walk if we can't give them some relief."

Staff photo/SUSAN GA

Project director Linda Allen speaks to patient Lillian Bowen about her medication.

MediVan serves about 13 percent of the county's elderly poor, but according to its staff, the need is much greater.

The program, which runs on an annual budget of $135,000 depends on community and corporate contributions for its support. It has recently begun getting reimbursements from Medicare and Medicaid.

Broward County commissioners have agreed to contribute $9,

"We'd like to expand the gram," Glasser said. "The thing stopping us is the fun There is so much competitio the dollar, and so many w causes."

Cover photo by Susan Gardne

AARP NEWS BULLETIN
Vol. 28, No. 7 Washington, D.C. July-August 1987

Extending a helping hand

Retired health workers make rounds among Florida's elderly—for free

A MediVan doctor examines patient in Ft. Lauderdale.

Sixteen retired persons and a 32-foot recreation vehicle (RV) bring to mind traveling across the country, or vacations at the beach.

But in Ft. Lauderdale, Fla., the RV in question and its crew are outfitted for a different kind of adventure.

Four days a week the "MediVan" is met by a team of dedicated volunteer health workers—all retired—at one of 18 pre-arranged sites. With their rebuilt van, loaded down with modern diagnostic equipment, they are there to bring health care to low income elderly throughout Broward County.

By so doing, they are making real an unusual experiment in which one group of older citizens is helping another. The average age of patients in the MediVan project is 82, while the average age of the volunteer physicians serving them is about 70.

"We're the only such project in the U.S. that is completely staffed by retired doctors and volunteer nurses," says Project Director Linda Allen Mc- [illegible]

[illegible] tored to serve a variety of health needs.

The reaction of the participating retirees also suggests there is a vast reservoir of skills that could be tapped. Solomon Goldstein, a retired physician from Brooklyn, says, "This MediVan crew is sincerely interested in helping the needy and we have the time and ability—we're all sensitive to the needs of human beings. It's a great project."

"This is a totally different experience for me, and I enjoy these tours of duty," says Ernie Jacobs, a former New York City policeman who, after retiring to Florida, trained and became a registered nurse.

His reasons for volunteering for MediVan? "I found that a lot of older people really needed help. I wasn't doing anything, had the time, and wanted to get involved. I didn't know it before, but there's a lot of satisfaction in this kind of work."

The idea for MediVan began in 1982 with Evelyn Glasser, MediVan's chairman who is also chairman of a state [illegible]

MediVan team makes scheduled visits to elderly in Broward County. Inside the MediVan, volunteers prepare for patients who will get exams and referrals. Doctors, nurses offer services free of charge.

because of ignorance or illiteracy or lack of money or lack of transportation. A common scenario is for a retired couple to use all its savings as one spouse goes through a long illness and eventually dies, leaving the other lonely and isolated and poor. And neglecting health problems.

Glasser spearheaded a drive that netted $40,000 in seed money from private corporations including American Express and Chevron, and got the [illegible]

retired physicians clubs and hospitals and put some publicity in Florida Nursing News.

The service was launched June 9, 1986, entirely on private funds by the Elderly Interest Fund, a non-profit group developed by the Area Agency on Aging.

Each morning, Monday through Thursday, the van leaves MediVan headquarters and heads for one of 18 to 20 selected retirement complexes, a-

STATEMENT OF SALLY KANTER-BRUIN, PALM BEACH COUNTY HEALTH TASK FORCE, ST. MARY'S HOSPITAL, MAMMOVAN PROJECT, WEST PALM BEACH, FL

Ms. **Kanter-Bruin**. Yes. My name is Sally Kanter-Bruin, and today I represent the Palm Beach County Community Outreach Committee of the American Association of Retired Persons. I am the health care chairperson, and we represent 115,000 members in Palm Beach County. I also today represent St. Mary's Hospital Mammovan project.

Let me say at the outset right now, after listening to a number of panel speakers, that I am angry, I am frustrated, and my presentation today will reflect it. I feel, as I have been sitting here, that we have got a decaying medical care system, getting worse and worse, listening to the people.

I am a grandmother; and I am a consumer activist; and I am concerned with health care available to the people.

This past week, I received some figures from the State Office of Vital Statistics at Jacksonville. FL. For the year 1986 in Florida, there were 2,367 breast cancer deaths in Florida, both male and female. White females were 2,165, and nonwhite females were 182. For the year 1985 in Florida, there were 2,271 breast cancer cases. 1986 showed an increase of several hundred more.

I ask you, and I ask myself the same question, that is hounding my mind: Could these deaths have been prevented? What did we do with prevention in the past?

When my first child was born 49 years ago, one of the compulsory innoculations given to all infants was a three in one DPT vaccination, sparing thousands of little ones from diphtheria, tetanus, and pertussis.

I also recall the great polio epidemic where so many children became crippled and many never made it. Thanks to Dr. Jonas Salk and our Government leadership in 1954, nothing was spared by our Government to take preventive steps against this dread disease. Shall we say that our Government had greater concern for its people then? Where have all our values gone?

Must we, the most civilized, the more advanced nation in the world, be at the bottom of the heap in health care, in relation to other industrialized nations like Europe and Canada? Must We close our eyes to the neglect of our indigent? Our State is 30th in the Nation for Medicaid assistance. We dump our elderly into warehouses (nursing homes) without any effort to give them the care and dignity that they are entitled to.

With proper orientation, we could save thousands of lives and reduce medical treatment costs in the long run.

If our priorities were turned to preventive care, we could reduce breast cancer deaths by at least 22 percent, and 5,200 fewer women would die of this dread disease in a year. Until breast cancer can be prevented or cured, the best hope for a successful outcome lies in early detection before the cancer has spread to surrounding tissues of the body.

Let me refer to the fortunate Lady. Many women were not as fortunate as Mrs. Nancy Reagan. They did not have her opportunities. These women have had to bear the agony of breast cancer, radical mastectomies, follow-up treatment of radiology, chemo, inability to work or care for their families, plus a heavy financial burden incurred. I am speaking about your wives, mothers, grandmothers, daughters, possibly members of your very own families.

I come from Palm Beach County, and I would like to tell you how a community responded in West Palm Beach, St. Mary's Hospital, a nonprofit institution, has stood out with an open door to help all patients regardless of race, creed, color, or financial status. It is a hospital with a "heart for the indigent."

We work very, very hard with enthusiasm and look forward to a preventive project that we can put into effect. And so, they have taken a giant step forward to try to give women the opportunity for preventive screening—mammograms. And what have we done?

They gave birth to a unique vehicle, the Mammovan, with the latest state-of-the-art equipment, with very low radiation. Its purpose was to tour the areas and come to the women who have had difficulty with transportation. AARP hailed this project and joined with them to welcome and assist in the program.

Incidentally, the van is also parked outside the building here, and you are all welcome to come and see it.

Hundreds of women made appointments the minute it was announced, in their various respective areas to receive mammograms. We didn't even have a chance to reach some of the indigent areas. Alas, the women suddenly learned that Medicare doesn't allow preventive screening tests, and even the low fee represents a hardship for many. So, the appointments have been cancelled.

Incidentally, when we started in November, to date I think we have screened about 189 or 190 patients. The very first day, we picked up a cancer patient who, at this point, has already had radical surgery. There were three other suspects in only this short period of time.

Our Mammovan could screen about 100 women at a cost of about $5,000 or $6,000, which is just a drop in the bucket compared to treating only one breast cancer patient.

The current Medicare Program is oriented towards treating the acute crisis, not preventing it. So, get sick first, and then we will meet you halfway.

The cost effective human being is what I would like to call this. Is this is what is called cost effectiveness? Or, as the old saying goes, "Penny-wise and thousands of dollars foolish"? Are we saying the cost benefit analysis now conclude that permitting 5,200 women to die is in keeping with the budgetary requirements of our Federal Government? Are we saying that a preventive medical care program for detection of breast cancer is not feasible because it would reduce deaths by 22 percent?

When medical care is being sold as a commodity at a price many cannot afford, or when human needs of a growing number go unassisted, our whole collective health system is damaged. As long as the importance of profit reigns over people's health, we are told how to live, to get sick, and to die.

Let me give a couple of quotes from some outstanding medical news periodicals.

The American Medical News dated November 27, 1987, has an article on Medicare mammogram coverage, with a subheadline which says: "Cost of Breast Screening Would Exceed the Savings."

On December 20, a few weeks later, the issue of Hospital Magazine dealt with a Congressional Office study which found that paying for mammograms would cost Medicare $1.5 million a year.

Rose Anthony of the Health Care Finance Administration says that extending Medicare coverage for preventive tests, such as mammograms, could open a Pandora's box with coverage for other screens soon to follow, such as Pap smears and urinalyses.

Shocking, isn't it? Playing with figures takes precedence over saving of lives. Who is placing this price on a human life? What is a life worth?

Medicare and our Nation's budget cannot afford to take preventive health care steps because our nation has other priorities, which go for killings. It is cheaper to bury the people, say the financial advisors. And to what do we attribute this madness approach? Should we turn the clock back to the Jonas Salk era?

I am concerned with half of our generation—women—about their lives, the quality of life, those who did not take the steps for preventive tests due to significant cost factors. And I am concerned with the women who live at or near the poverty level.

Do we have the answers? Recently, the American College of Obstetricians and Gynecologists have spoken out. They have written a letter in support of the inclusion of pap smears as one of the necessary screen tests.

Representative Pete Stark of California has introduced legislation that would expand Medicare to cover mammograms done at intervals as recommended by the American Cancer Society. Payment would be limited to $50 in the year 1990, which would be the first year of coverage.

I hail his concern about this, but I have a problem with the test of his bill. Can we wait until 1990? Can our conscience allow us to let 47,000 women die until 1990? And what will the inflation value of $50 be in 1990?

Mammography is one area in which data demonstrate that that its success has been proven. AARP supports preventive testing program and urges mammogram screening to be included in the Medicare Program. Our legislators must take a positive approach to these life-saving preventive programs, as was done with other dreaded, killing diseases.

AARP looks forward to joining in this effort to wipe out unnecessary breast cancer deaths. I want to thank you for your cooperation.

We have representatives here from St. Mary's Hospital, especially the Director of the Radiology Cancer Department at St. Mary's Hospital. If there are any questions we can direct them to him. Thank you.

[Applause.]

Senator MITCHELL. Ms. Kanter-Bruin, thank you. That was a very compelling statement and I think appropriately was the last word. We will now turn to Senator Graham for any questions.

[The prepared statement of Ms. Kanter-Bruin follows:]

SALLY KANTER-BRUIN
131 Lake Susan Drive
West Palm Beach, Fl. 33411
PH; 305-689-1992

Testimony - Jan. 6, 1988 at Senate Finance Comm.
Risk-Reduction & Health Promotion

WHAT IS A LIFE WORTH

My name is Sally Kanter-Bruin and today I represent the Palm Beach County Community Outreach Committee, American Association of Retired Persons. I am the Health Care Chairperson and we represent 115,000 members in Palm Beach County.

I am a grandmother, a Consumer Activist and am concerned with the Health Care available to the people.

This past week, I received some figures from the State Office of Vital Statistics at Jacksonville;

For the year 1986, in Florida;--

Breast Cancer Deaths........	2,367	(Male & Female)
White Females	2,165	
Non-White Females	182	

For the year 1985 in Florida;--

Breast Cancer Deaths........ 2,271 (Male & Female)

I ask you, and I ask myself the same question that is hounding my mind - COULD THESE DEATHS HAVE BEEN PREVENTED?

PREVENTION IN THE PAST

When my first child was born 49 years ago, one of the compulsory innoculations given to all infants was the 3 in 1, DTP Vaccination, sparing thousands of little ones from Diptheria, Tetanus and Pertussis.

I also recall the great Polio epidemic where so many children became crippled and many NEVER MADE it. Thanks to Dr. Jonas Salk and our Gov't leadership in 1954, nothing was spared to take preventive steps against this dread disease. Shall we say that our Govt had greater concern for its people then.
Where have all OUR VALUES GONE?

Must we, our 'most civilized, most advanced Nation in the World' be at the bottom of the heap in Health Care, in relation to other Industrialized Nations of Europe and Canada? Must we close our eyes to the neglect of our indigent? Our State is 30th in the Nation for Medicaid assistance. We dump our Elderly into warehouses (Nursing Homes), without any effort to give them the care and dignity they are entitled to.

With proper orientation, we could save thousands of lives and reduce medical treatment costs in the long run. If our priorities were turned to preventive care, we could reduce Breast Cancer deaths by at least 22% and 5,200* fewer women would die of this dread disease in a year.

Until Breast Cancer can be prevented or cured, the best hope for a successful outcome LIES IN EARLY DETECTION, before the CANCER HAS SPREAD to surrounding tissues of the body.

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*5,200 women older than Age 65, American Medical News 11/27/87.

THE FORTUNATE LADIES

Many women were not as fortunate as Mrs. Nancy Reagan. They did not have her opportunities. These women have had to bear the agony of Breast Cancer, radical Mastectomies, follow-up treatment of radiology, chemo, inability to work or care for the family, plus the heavy financial burden incurred.

I'm speaking about your wives, mothers, grandmothers, daughters, possibly members of your very own family.

A COMMUNITY RESPONSE IN WEST PALM BEACH

St. Mary's Hospital, a nonprofit Institution, has stood out with an open door to help all patients regardless of race, creed, color or financial status. It's a hospital with a 'HEART FOR THE INDIGENT'!

They've taken a giant step forward - to try to give women the opportunity for preventive screening - MAMMOGRAMS.

They gave birth to a unique VEHICLE - A MAMMOVAN, with the latest 'STATE OF THE ART' equipment, with very low radiation. Its' purpose - to tour the areas and come to the women who have difficulty with transportation. AARP has joined with them to welcome and assist in this project.

Hundreds of women made appointments at their respective areas to receive MAMMOGRAMS. We didn't even have a chance to reach some of the indigent areas. Alas, the women suddenly learned that Medicare doesn't allow preventive screening tests, and even the low $60 fee represents a hardship for many. So appointments have been cancelled!

Our MAMMOVAN could screen 100 women at a cost of $6,000, which is a drop in the bucket compared to treating only one BREAST CANCER PATIENT.

The current Medicare program is oriented towards treating the ACUTE CRISIS, not PREVENTING it. Get sick first, and then we'll meet you half-way.

THE COST-EFFECTIVE HUMAN BEING

Is this what is called, 'Cost Effectiveness', or as the old saying goes,

"Pennywise and Thousands of $'s Foolish!"

Are we saying that cost benefit analysis now concludes that permitting 5,200* women to die is in keeping with the budgetry requirements of our Federal Gov't?

Are we saying that a preventive Medical Care Program for detection of Breast Cancer is not feasible because it would reduce deaths by 22%?

When Medical Care is being sold as a commodity at a price many CANNOT AFFORD, or when human needs of a growing number go unassisted, our collective health is damaged. As long as the importance of profit reigns over peoples health, we are told how to live, get sick and to die.

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WHO IS PLACING THIS PRICE ON A HUMAN LIFE?

WHAT IS A LIFE WORTH?

Medicare and our Nations budget cannot afford to take preventive health care steps. Our Nation has other priorities, which go for killings. Its cheaper to bury people, say the Financial advisors.

To what do we contribute this MADNESS APPROACH?

Should we turn the clock back to the Jonas Salk era?

I'm concerned about ½ our generati[illegible] women - about their lives - the QUALITY OF LIFE, those who [illegible] not take steps for preventive tests due to significant cost factors. I'm concerned about the women who live at, or near the poverty level.

DO WE HAVE ANSWERS?

Recently, the American College of Obstetricians and Gynecologists have spoken out, and written a letter in support of the inclusion of Pap smears as one of the necessary screen tests.

Rep. Fortney "Pete" Stark (D-Calif) has introduced legislation that would expand Medicare to cover MAMMOGRAMS done at intervals as recommended by the American Cancer Society. Payment would be limited to $50., in 1990, which would be the first year of coverage. I hail his concern, but I have a problem with the text of his Bill. Can we WAIT until 1990? Can our conscience allow us to let 47,000*women die until 1990, and what will the inflation value of $50 be in 1990?

MAMMOGRAPHY is one area in which data demonstrates that its success has been proven.

AARP supports preventive testing programs and urges MAMMOGRAM SCREENING be included in the Medicare program.

Our Legislators must take a positive approach to these LIFE-SAVING preventive programs as was done with other dread killing diseases. AARP looks forward to joining in this effort to wipe out unnecessary Breast Cancer deaths.

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*OTA - Office of Technology Assessment study: about 110,000 new Breast Cancers will occur in U.S. this year; 47,000 (44%) will die of the disease.

Senator **Graham**. I would like to ask Dr. Kassan: How would you see programs such as your MediVan being funded under Medicare or an expanded Older Americans Act? How could this type of service be accelerated in its utilization as a preventive tool?

Dr. **Kassan**. I must say that this program was established as a private community affair. It is an example of how an interested community can take care of its own problem. We do not get and do not look for any funding from the Government

The only funding that we get indirectly is that some of these patients are Medicare patients, and we have made an arrangement where we can get what Medicare allows for a patient. We have not been approved as of yet to receive Medicaid, but that is in the works.

This is the only funding that we get from any Government source. Because of the efforts of this dedicated group of the Elderly Interest Fund, we are able to raise money from the private sector and corporate organizations. I might say that FPL has been very generous in supporting us in all ways. We get funds from foundations, from simple $5, $10 and $100 contributions to more substantial amounts. We have raised money and have been able to survive and survive very well.

We run a budget of about $100,000 a year. Now, you have to understand that we never charge a patient for anything. So far as our preventive measures are concerned, we give flu shots; we give pneumo-vaxs; we do regular screening for tuberculosis; and all this is free.

So, we have been able to do very well, and I think it is an excellent example of what can be done if a group really wants to go out and do it.

As I said, all of our doctors, nurses, social workers are volunteers. We give gladly of our time to be able to do this because we feel that it is such a vital need, and we are gaining, I think, as much as we are giving. We have as dedicated and as loving a group of people working with this thing as I have ever been associated with in all my long years, and that is a long time.

I must say that my only description of this—and I guess I am rambling a little bit but I think I answered your question at the very beginning as to how we expect to get money from additional sources—my only description, and I think it is apt because of our experiences in dealing with so many of these people, is that I consider the MediVan as an oasis of loving care in the community.

So, I guess this is about the way it adds up. This is something we are doing and we are only too happy to do it. The little bit that we get from Medicare and Medicaid is fine. It certainly helps, but further funding we are not looking for.

We are just presenting a concept of how the problem of meeting the care of the elderly indigent who are underserved medically can be met, if a community is really interested in addressing the problem.

[Applause.]

Senator **Mitchell**. You say you provide the service free. Do you have any testing of the ability of the patients to pay? Or do you simply provide anybody with the service?

Dr. **Kassan**. There is a basis. In order for a patient to be eligible for this service, he or she must be over 60. If it is an individual, the income must be $7,000 or less, or if it is a couple, $10,000 or less.

Senator **Mitchell**. And do you simply accept that person's statement as to their income level?

Dr. **Kassan**. We have a social worker who interviews them.

Senator **Mitchell**. I see.

Dr. **Kassan**. The social worker asks for some evidence, whether it be Social Security or whatever; but they provide the evidence of where it is coming from.

Senator **Mitchell**. Thank you. Senator Graham?

Senator **Graham**. Dr. Lyman, reference was made to the Office of Technology Assessment study which indicated that screening by mammography would cost more than it would save. What is your assessment of that conclusion? And specifically, do you believe that screening by mammography would reduce serious illness, reduce the need for hospitalization, and improve the productive years and length of the productive years for older Americans?

Dr. **Lyman**. As our data, as well as the OTA data, I think would suggest, the cost effectiveness or the cost for each life saved depends very greatly on the numbers that are plugged into the equations: the cost of the various procedures, the mammogram, and so forth, the prevalence of the disease. So, you want to focus on a high-risk group, but that is, by definition, the 65 and over group; and you want the test to be as sensitive and specific as possible.

What our data have shown, using sensitivity analysis, where you vary these various factors, is that within the range of readily achievable values for test performance, the estimated frequency of the disease, prevalence of the disease in the population, and current—although variable—costs charged for these various aspects of care, that a break-even or better situation is possible and can be achieved today and in the future, while at the same time saving lives.

That doesn't mean it is going to happen automatically if there are not constraints put on the situation. There need to be constraints on the cost of mammography, the cost of health care; the procedure needs to be applied by skilled individuals using modern equipment and so forth. And all these need to be defined; but if they are, then a break-even point is possible or, at the very worst, the cost per life saved can be brought down to a very nominal amount considering the magnitude of the benefit.

Senator **Graham**. Do you think programs such as Ms. Kanter-Bruin has indicated could be part of that effort to make the screenings more available and bring down the cost?

Dr. **Lyman**. Yes. I think, as has been brought out several times, that you not only have to make it available; but you need to make it readily accessible and utilized; and not only does the mobile unit, as has been demonstrated in some hands, bring down the cost per examination, but it gets around that issue that I addressed where some studies demonstrated that even referral under a physician's recommendation for screening mammography, when the woman has to pay for the procedure herself or get to the facility, less than 10 percent in some studies have actually complied with those recommendations.

So, anything we can do to get around the financial barrier and the accessibility barrier—and I think this may achieve both—is going to go a long way towards demonstrating the cost effectiveness of this approach.

Senator **Graham**. Thank you very much, Mr. Chairman.

Senator **Mitchell**. Thank you very much, Senator Graham. Thank you very much, all of you. Your testimony has been very interesting and compelling. That completes the testimony.

I am grateful to all of the witnesses for coming today, for all of you ladies and gentlemen who have sat through the hearing. The information we have received will be very useful in helping us attempt to frame a national policy that will encourage preventive medical treatment, to deal with problems before they become acute, thereby enhancing the lives of our citizens throughout the country.

Thank you very much. Senator Graham, do you have any brief closing remarks?

Senator **Graham**. Again, Senator Mitchell, I want to thank you for giving these Floridians an opportunity to present to the Nation what they are doing in this important area. There has been a theme running through all of the comments, and that is whether we are prepared as a Nation to accept human life and the quality of that life as just an immediate expenditure or whether we as a Nation value life and are prepared to make an investment in long-term quality and productivity.

I think what we have heard today has been a compelling case both in terms of the morality as well as the potential economics of that investment in life; and I hope that this will be a contribution towards an accelerated national policy with that investment in life as its ultimate objective. Thank you, Mr. Chairman.

Senator **Mitchell**. Thank you very much. The hearing is concluded.

[Whereupon, at 12:15 p.m., the hearing was adjourned.]

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